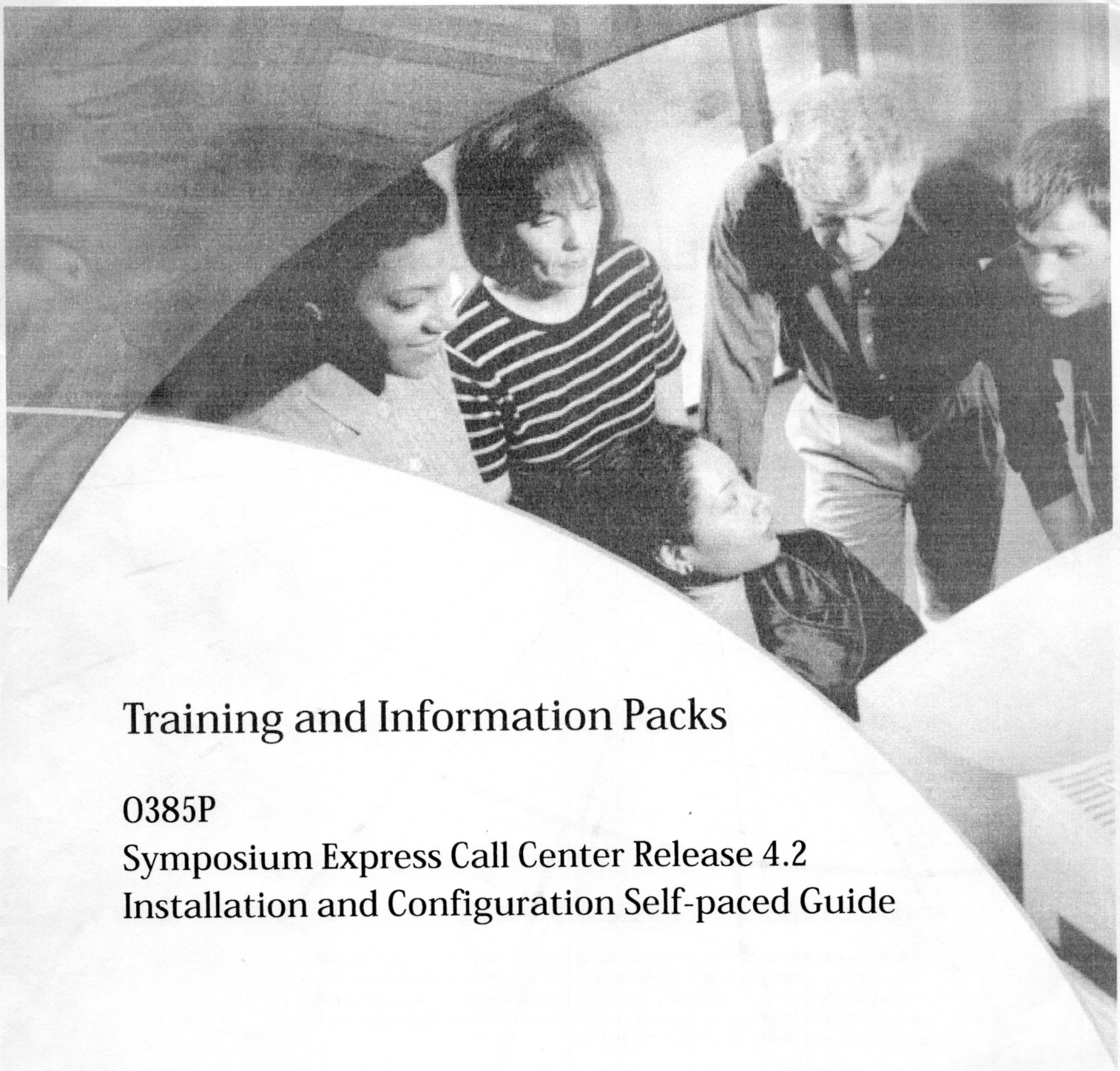


Training and Information Packs

0385P
Symposium Express Call Center Release 4.2
Installation and Configuration Self-paced Guide

NORTEL NETWORKS™

Symposium Express Call Center

Welcome to Enterprise Solutions Training

0385P Symposium Express Call Center 4.2 Installation and Configuration Self-paced Guide

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NORTEL NETWORKS

Revision history

April 1, 1999

Issue 1.0 This is the standard release of this course.

April 15, 1999

Issue 2.0 Course updated due to product changes.

October 15, 1999

Issue 3.0 Course updated due to product changes.

December 17, 1999

Issue 4.0 Course updated due to product changes.

September 28, 2001

Issue 5.0 Course updated for product release 3.0. New lesson added for Symposium Express Voice Services card installation in the Meridian 1 switch.

February 28, 2002

Issue 6.0 Course updated due to product changes. Information added on installing the Symposium Express Call Center Windows 2000 Client software on a PC the using Windows 2000 Professional operating system.

May 16, 2003

Issue 7.0 All lessons updated to reflect Release 4.2 features and content.

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Voice Services Card Installation ..... Lesson 3

Customer-Supplied Equipment ..... Lesson 4

Setting Up the Server ..... Lesson 5

Installing the Server Software ..... Lesson 6

Installing the Client Software ..... Lesson 7

Post Installation Tasks ..... Lesson 8

Call Center Configuration ..... Lesson 9

Voice Services Card Configuration ..... Lesson 10

Backup and Restore ..... Lesson 11

Local Area Networks ..... Appendix A

Product Differences ..... Appendix B

Voice Services Card Call Treatments ..... Appendix C

Prompt/Collect Digits Call Treatments ..... Appendix D

Introduction

Welcome to the Nortel Networks Symposium Express Call Center 4.2 Installation and Configuration Self-paced Guide.

This course is designed as a self-paced guide that will aid the installation technician and provide detailed step-by-step procedures for the installation and configuration of Symposium Express Call Center Release 4.2. This self-paced guide contains easy to understand descriptions, digital photographs and helpful tips. Practice questions and skill-checks are provided in each lesson for to ensure the comprehension of essential tasks. Symposium Express Call Center is a member of Nortel Networks Symposium product family that provides a basic call center aimed at the 1 to 150 agents call center market.

What's new

Remote Backup and Restore: Allows the use of a remote network drive for the backup and restore functions in addition to the tape drive.
Pre-installation Process: Allows the installer to pre-install the Symposium Express Call Center server application software on a PVI server without entering customer information.
Disk cloning: Provides an alternative method of installation for deploying a large number of Symposium Express Call Center servers on a standardized PVI platform.
Install Time PEP: This procedure allows the installer to load PEPs to correct known issues during software installation.
Enhanced PVI Checker Utility: The PVI Platform Compliance Check utility verifies that the server platform meets the minimum configuration requirements.
Succession CSE 1000 Support: Symposium Express Call Center is now supported with the Succession CSE 1000 System.
CallPilot Integration: Symposium Express Call Center supports CallPilot integration. CallPilot provides the same voice services functionality that is currently available via Meridian Mail.
Play Prompt/Collect Digits: The Play Prompt/Collect Digits feature allows a call center to collect digit information from customers and use TAPI Service provider to display this information on an agent's desktop (Screen pop).
Voice Services Backup/Restore: The Voice Service Backup/Restore application backs up the system registry along with the Voice Service database. This ensures that the backup file holds a more complete record of the Voice Service configuration.
Voice Service Engineering and Capacity Tool: The functionality of the Voice Service Capacity Tool is incorporated into the Voice Services Client to ensure that the utility is available to check the Voice Service configuration.

Participants

This course is designed for distributors, business partners, COAMs, and Nortel Networks support personnel who install and configure Symposium Express Call Center (SECC).

Prerequisites

You must have completed these courses and be knowledgeable in the following:

- 0200C or 0200T or 0200W and
- 0300C or 0300T or 0300W or 0302C or 0302T or 0302W and
- 0340C or 341T
- A Working Knowledge of
  - CallPilot or Meridian Mail provisioning
  - Windows 2000 Server, Windows 2000 Professional, and Windows XP Professional
  - Installing software from a CD-ROM
  - Local Area Networks (LANs), IP Addressing and TCP/IP

Objectives

After completing this course, the self-study participant will gain an understanding of the following tasks:

- Install the Symposium Express Call Center Rls. 4.2 software on customer supplied PC(s) in accordance with applicable Nortel Networks documentation
- Configure the Symposium Express Rls. 4.2 Call Center in accordance with customer requirements and in accordance with applicable Nortel Networks documentation

Required equipment

To make the most of your training experience, the following equipment should be available:

- A PC that meets all requirements listed in Lesson 4 for the PVI server platform on which the Symposium Express Call Center server and co-resident client application software will be installed
- A PC that meets all requirements listed in Lesson 4 for the stand-alone client platform on which the Symposium Express Call Center client application software will be installed
- Windows 2000 Server with Service Pack 2 operating system software for the server PC
- Windows 2000 Professional or Windows XP Professional operating system software for the client PC
- A Meridian 1 or Succession CSE 1000 Switch
- A Symposium Express Call Center Voice Services Card
- The following Symposium Express Call Center Release 4.2 software on CD-ROM:
  - Symposium Express Call Center Release 4.2 Server Application CD
  - Symposium Express Call Center Release 4.2 Client Application CD
  - Symposium Express Call Center Release 4.2 Supplementary CD
  - Symposium Express Call Center Release 4.2 Documentation CD
  - pcAnywhere Release 10.5 Host-Only CD
  - GRTD Release 3.05.05 CD

Documentation

The standard documentation for this course includes:

- Nortel Networks *Symposium Express Call Center Planning, Installation, and Administration Guide*
- Nortel Networks *Symposium Express Call Center Call Center Management Guide*
- Nortel Networks *Symposium Express Call Center Reports and Displays Guide*
- Nortel Networks *Symposium Express Call Center Voice Services Car d Installation Guide*
- Nortel Networks *Symposium Express Call Center Voice Services Card Maintenance and Troubleshooting Guide*

How to Get the Most Out of this Training Course

Here are some simple pointers that can increase the amount of information you can learn and retain using this course:

- **Understand the objectives:** Read each lesson's introduction and verify you understand the lesson's objectives.
- **Gather your learning tools:** Read the *Resources* box at the beginning of the lesson to identify the learning tools and resources available for use. To enhance your learning, have all Resources available to you while you do the training.
- **Take advantage of course resources:** Watch any presentations or videos that are a part of the course. Also, be sure to read the product documentation and refer to it often. The product documentation is a valuable resource and contains comprehensive information for any product. You will find the table of contents, index, and glossary are the easiest and fastest way of locating information.
- **Work with the actual product:** Use the actual product to test out examples and explore all the possibilities. Follow examples in the course or make up your own. Use the product to test the examples out and verify that they work. Set up typical or incorrect scenarios and see what happens. The important point is to work with the actual product to gain a mastery of how it operates and what you need to know to configure it.
- **Make notes and summarize information:** Take notes on what you are learning. When you finish studying, make summary notes to review the next day.
- **Review your summary notes frequently:** Review your notes from the previous day. As you read each point think through the details that are associated with it.

Notes



How to Get the Most Out of this Training Course (continued)

- **Ask questions...get the answer:** As you read, make a list of questions as they occur to you. Refer to the product documentation, the course materials, and other resources to find the answers. The important point is to ask lots of questions and follow through to get the answers.
- **Use a variety of learning methods:** You may prefer one method of learning; however, do not be too quick to discard the others.
- **Verify your mastery of the material:** Complete the practices and skill checks at your own pace. Verify your work and ensure that you are confident with your understanding of the material before proceeding to the next lesson.
- **Take rest breaks:** Rest breaks are as important as studying really hard. Rest breaks allow you to clear your mind and absorb the information you have just studied. Take just two minutes to stand and stretch your arms and legs.
- **Go at your own pace:** Self-paced learning is just that - self-paced. Do not advance through the material until you master the current lesson. Take advantage of the practice questions at the end of each lesson. You can use these questions as tools to determine your mastery of a topic. At any point you can go back and review what you have just covered.
- **Study in a consistent location:** A consistent location helps to reinforce learning. Contextual memory helps you learn new information and retain it for the long term.
- **Study at the same time each day:** A consistent study time also helps to reinforce learning. You will be surprised at how much material you can cover. Start each session with a review of the day before, especially your summary notes.

Notes



Lesson Conventions

Format

The table below describes the lesson sections.

Section	Description
Introduction	The Introduction provides an overview of the lesson's subject matter.
Objectives	The Objectives describe the types of tasks you should be able to perform after successfully completing the lesson.
Resources	The Resources section lists the Nortel Networks Technical Publications and other resources to which you may refer for assistance with the lesson.
Presentation	The presentation section lists the topics to be covered. A presentation might be a lecture, a demonstration, slides, a video, etc.

Notes



Lesson Conventions (continued)

Information Icons

The table below describes the information icons that can appear in the lesson. These icons highlight special information or facts.

Icon	Definition
	Space for you to write notes during the presentation. The presentation might be lecture, video, audio, slide presentation. The notes section is available for your personal notes and comments. We encourage you to take notes throughout the lesson to help reinforce your understanding of its contents.
	Power tip or helpful hint
	Alert or caution

Notes



Lesson Conventions (continued)

Interactivity Icons

The table below describes the interactivity icons that can appear in the lesson. These icons highlight activities that occur during a presentation or lesson.

Icon	Definition
	This represents an electronic interactivity - video, animation, etc.
	This represents a paper-based interactivity - question and answer, true or false, or a review.
	This represents a hands-on activity using a PC or TTY.
	This represents a hands-on hardware activity (for example, installing a cable).
	This represents answers to Practice or Skill Check.

Notes



Lesson Conventions (continued)

Typography

The table below describes typography conventions.

Term or phrase	Definition
Italicized font	An *italicized font* typically indicates the title of a resource, such as a *Nortel Networks Technical Publication*.
Bold font	A **bold font** typically indicates information you are to enter, buttons you are to click, or menus you are to choose.
Underlined word	An underlined word typically indicates emphasis. For example, do not exit the Navigator.

Notes



Lesson Conventions (continued)

Commonly Used Terms

The table below describes commonly used terms. For this course, assume that the mouse is configured for the right hand.

Term or phrase	Definition
Click **OK**.	The term "click" typically means to position the mouse on the object and click once with the left mouse button.
Double-click on the **System**.	The term "double-click" typically means to position the mouse on the object and quickly click twice with the left mouse button.
Click the **right mouse** button.	"Click the **right mouse** button" typically means to position the mouse on the object and click once with the right mouse button. This accesses a special object, or short-cut menu, with options unique to the selected object.
Select **File - Open**.	Choose the object you want to access or the task you want to perform. For many tasks, you can select from the menu bar, double-click, click the right mouse button and select from the object menu, or use keyboard shortcut or accelerator keys.
Access the **application**; Launch the **application**.	These terms mean to open the item.
Close or **Exit** the window.	These terms mean to use a window control, menu option, or other method to back out of the active window.
Highlight the icon.	Position the mouse on the object and click once on the left mouse button so that the item is highlighted, but not opened.

Notes



Symposium Express Call Center Overview

Introduction

Nortel Networks Symposium Express Call Center is a member of the Nortel Networks Symposium product family. Symposium Express Call Center provides the basic features of Symposium Call Center Server for a call center with up to 150 agents and 5000 calls per hour. Major features of Symposium Express Call Center include:

- A software-only product that the customer loads on locally purchased computer system hardware
- Industry standard client/server architecture with the server and Co-resident client installed on a PC running Microsoft® Windows 2000™ Server or Windows 2000™ Advanced Server, and the clients on separate PCs running either Windows 2000™ Professional or Windows XP™ Professional.
- A set of features and intelligent defaults that make installation, configuration, and administration simpler for users
- A wizard manager main window with icons for quick access to system control

Objective

At the conclusion of this lesson, given your courseware and the *Symposium Express Call Center Planning, Installation, and Administration Guide*, you will be able to complete the following tasks:

- Describe the architecture of the Symposium Express Call Center system
- Describe the call flow within the Symposium Express Call Center system
- List the capacities of the Symposium Express Call Center system

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Getting Started"		

Terms

Automatic Call Distribution (ACD) call

A call that enters the system through one or more central lines (could be an external or internal call), and then is presented to agents within the call center according to their skillsets and the services required by the caller.

Calling Line Identification (CLID)

This is the telephone number of the instrument used by the caller on an incoming call.

Customer Local Area Network (CLAN)

This network is provided by the customer to run client applications.

Dialed Number Identification Service (DNIS)

A feature that allows the system to recognizes the phone number dialed by the incoming caller. Agents can receive calls from customers calling in on different DNISs, and tailor their responses according to the DNIS that appears on their phoneset.

Dynamic Host Configuration Protocol (DHCP)

A protocol that dynamically assigns IP addresses to devices on a network.

Embedded Local Area Network (ELAN)

This network is used for Nortel Networks applications and the Meridian 1 switch. It is segregated from the CLAN for security and traffic purposes.

Graphical User Interface (GUI)

The presentation between the user and the system is a user-friendly Windows-based standard.

Icon

An icon is a small picture that represents an object or program in a GUI.

Skillset

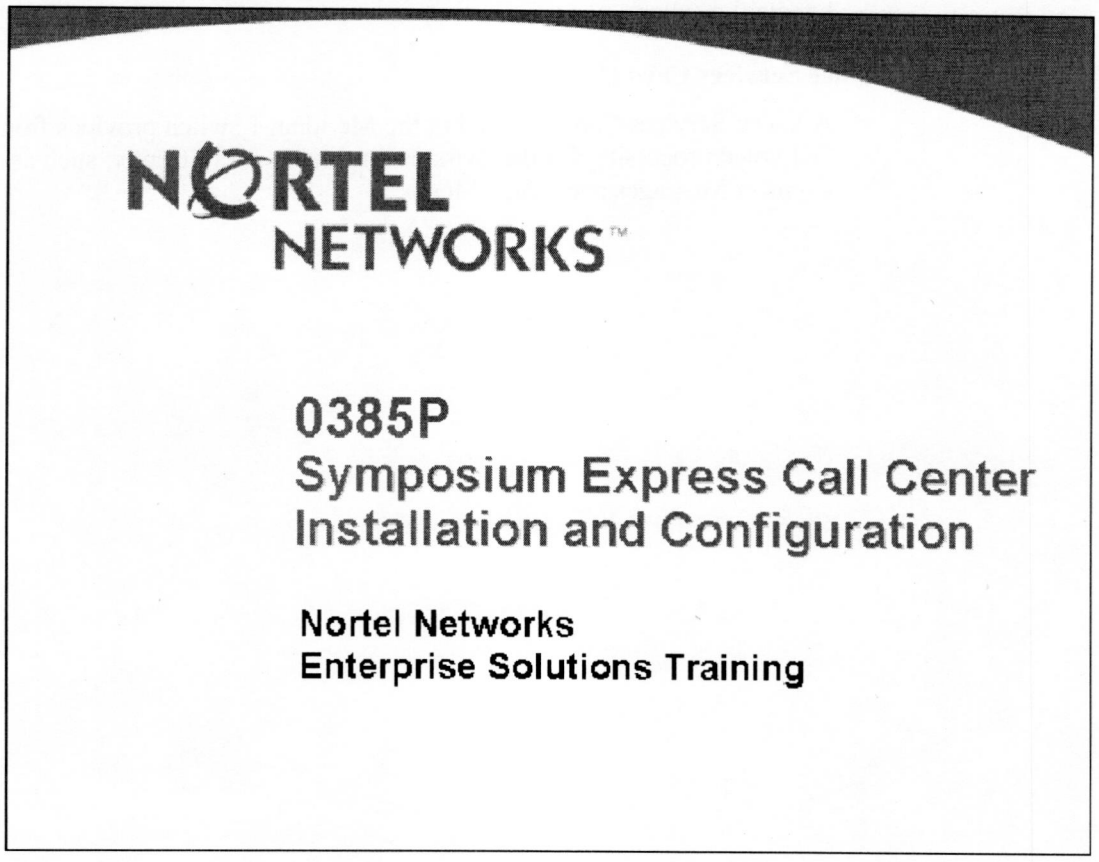
A label for a collection of skills shared by one or more agents. A call is routed to an agent who is assigned to the relevant skillset to properly handle the caller's needs.

Voice Services Card (VSC)

A Voice Services Card installed in the Meridian 1 switch provides front-end voice processing for the Symposium Express Call Center, such as Comfort Messages and Voice Menus.

Course Introduction

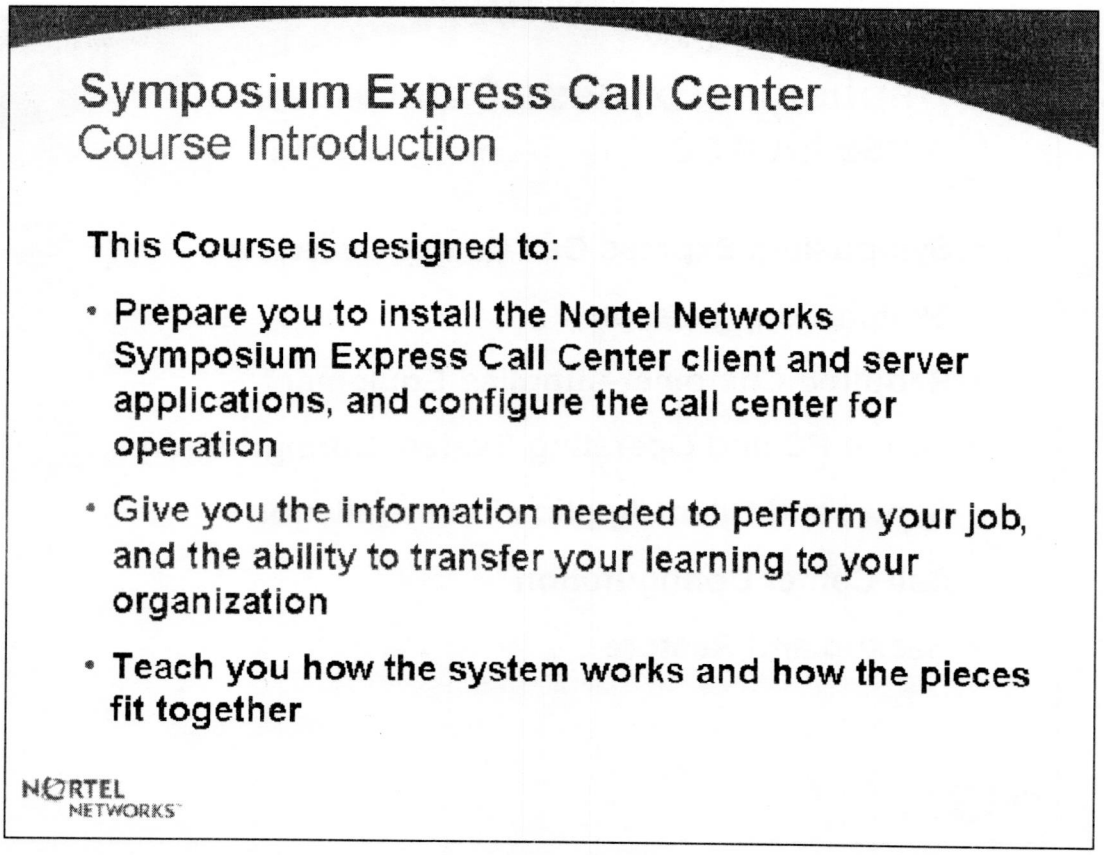
Figure 1: Introduction Slide



Notes



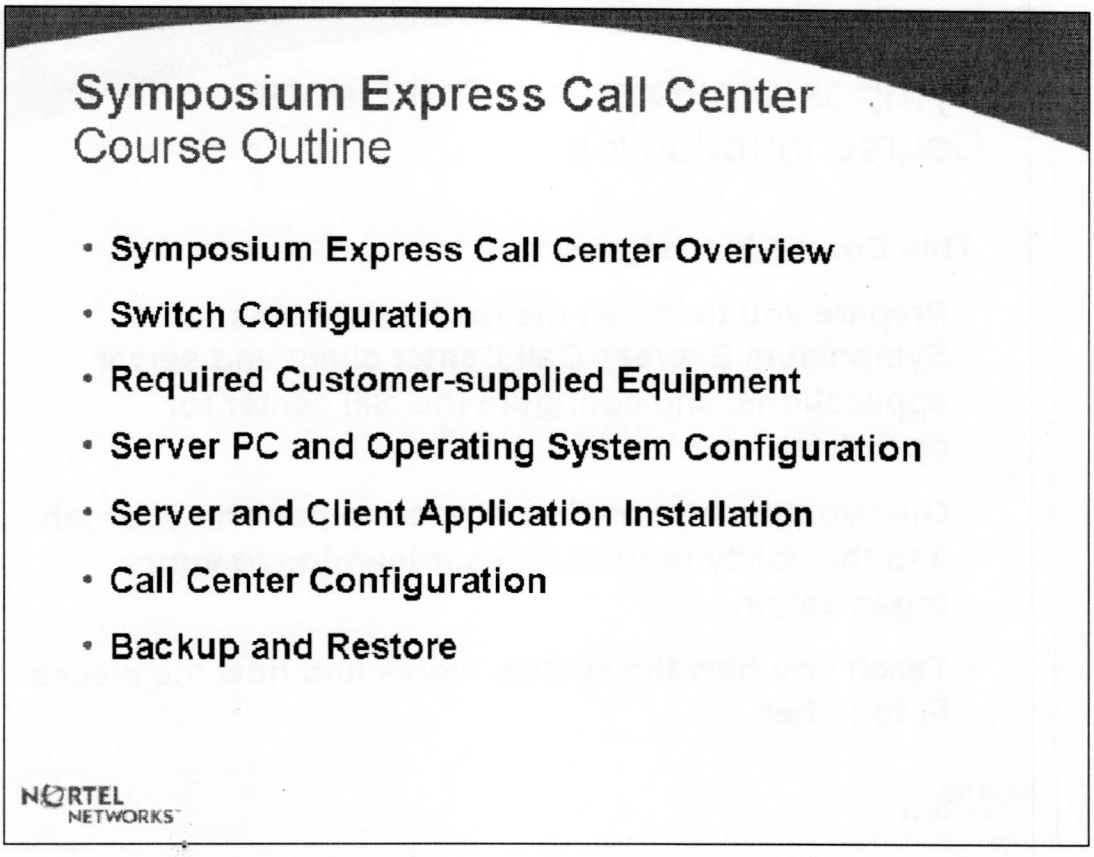
Figure 2: Course Introduction Slide



Notes



Figure 3: Course Outline Slide

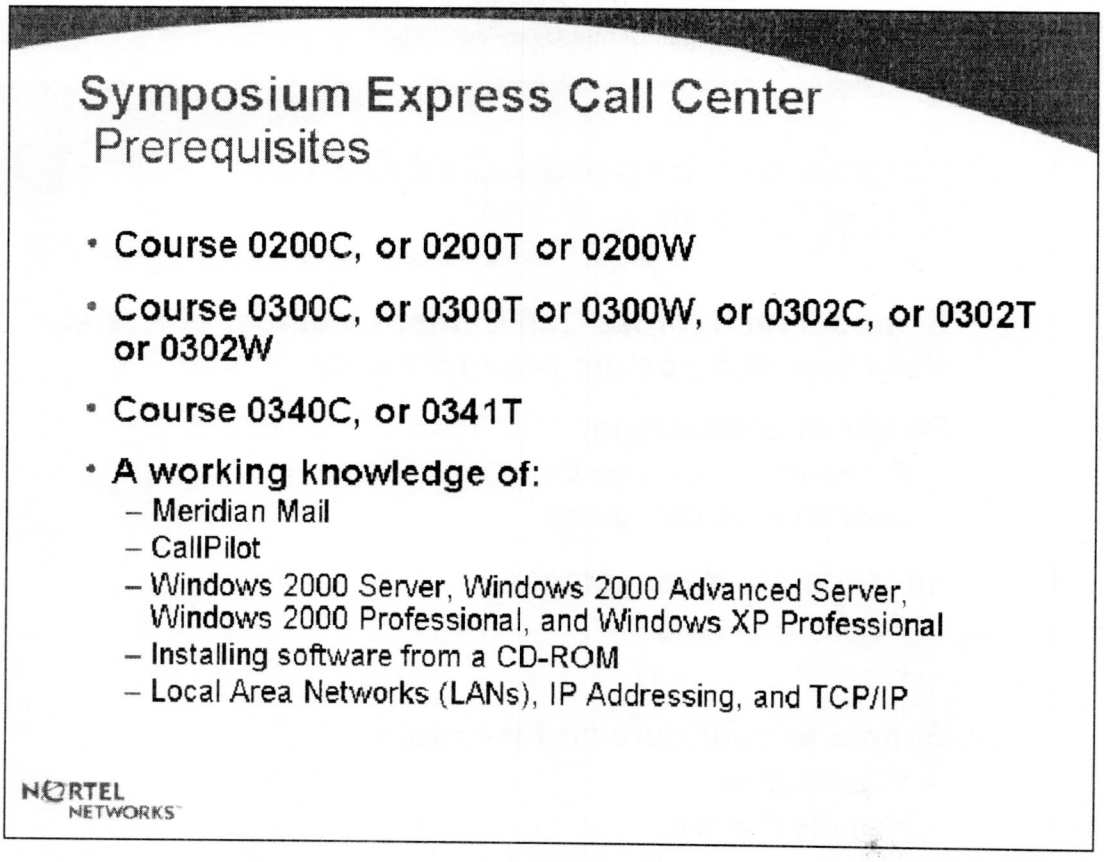


This course has been created to help you gain the knowledge and skills required to install and configure Symposium Express Call Center. Each task is presented in an orderly step-by-step manner. The lessons in this self-paced guide follow the sequence in which you will need to perform the tasks. Also, each lesson builds on the knowledge gained in the previous lessons.

Notes



Figure 4: Prerequisites Slide



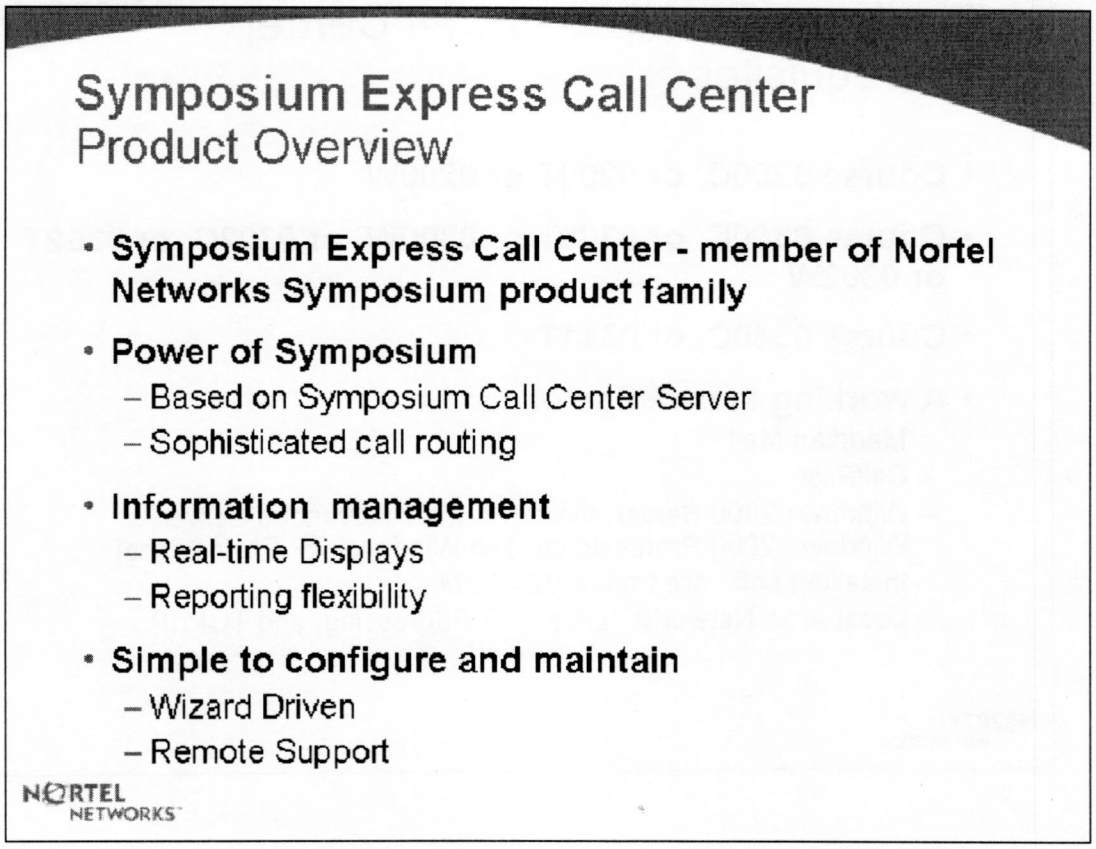
It is essential that you possess all of the prerequisites listed above. This course assumes that the student is familiar with the prerequisites. As this is a self-paced guide, you will not have an instructor available to explain any material that is considered to be prerequisite knowledge.

Notes



Symposium Express Call Center Product Overview

Figure 5: Symposium Express Call Center Overview Slide

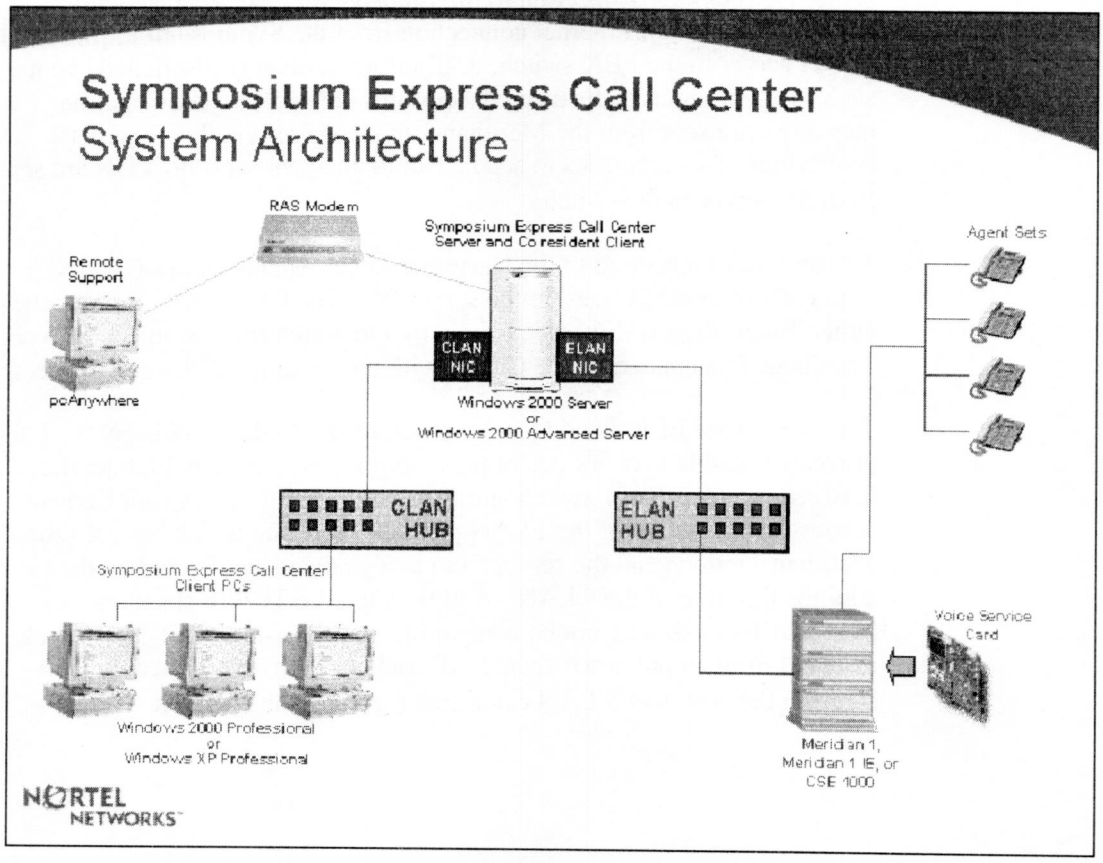


Symposium Express Call Center is designed to provide the essence of Symposium Call Center Server (a Nortel Networks product for large enterprise call centers) with a greatly simplified implementation effort. The time required for the loading of server and client software and configuration of call center services is greatly reduced.

Symposium Express Call Center does not require that you have the ability to author scripts or write programs. You simply answer on-screen prompts, and the software automatically creates the required scripts.

The software uses intelligent "wizards" to lead you through the installation and configuration processes in a step-by-step manner. Also, the software allows you to move backward and forward in the installation process to correct any mistakes you may have made.

Figure 6: Symposium Express Call Center Architecture Slide



Symposium Express Call Center uses industry-standard client-server architecture. Windows 2000 Server or Windows 2000 Advanced Server is required for the Symposium Express Call Center server application. Either Windows 2000 Professional or Windows XP Professional may be used for the Symposium Express Call Center client application.

The Symposium Express Call Center server application software is installed on the server PC. The Symposium Express Call Center client application software is installed as a co-resident client on the server PC and also on optional stand-alone client PCs.

Notes



A Network Interface Card (NIC) in the Symposium Express Call Center server PC provides connection to the Embedded Local Area Network (ELAN). This is an Ethernet connection from the Symposium Express Call Center server to the PBX switch. Call information and unsolicited events, such as agent logins, calls offered, set status change, and confirmation messages, are sent from the Meridian 1 to the server via this Ethernet connection. Also, requests to send a call to an agent set or to a DN are sent from the server to the switch.

The optional connection to the Customer Local Area Network (CLAN) requires a second NIC card in the server PC. The CLAN NIC card can be either Token Ring or Ethernet, as required to match the customer's network. The client PCs connect to the CLAN with the customer's PCs and printers.

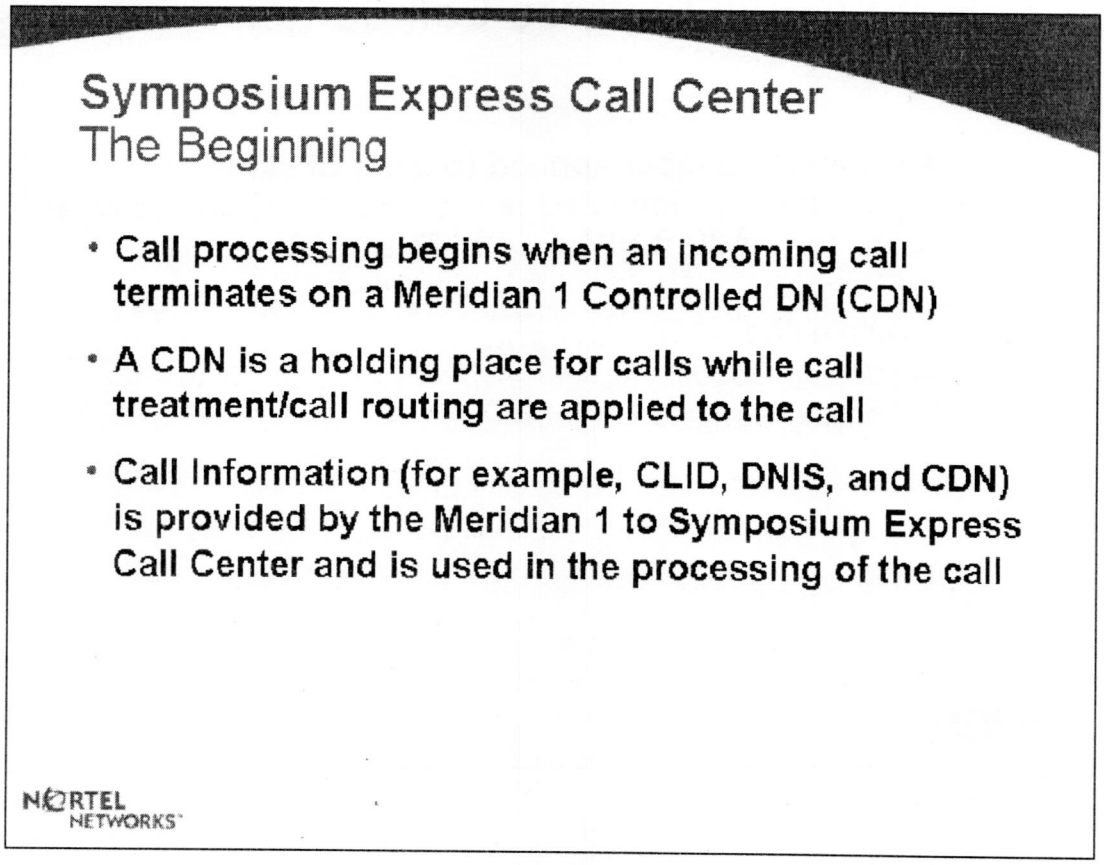
The two LANs, ELAN and CLAN, are divided into different subnets. This prevents possible network performance problems caused by high traffic between the Meridian 1 switch and the Symposium Express Call Center server. The isolation of the ELAN prevents real-time traffic between the Meridian 1 switch and the server from being adversely affected by the additional traffic on the CLAN. Additionally, the TCP/IP stack on the Meridian 1 switch may not be compatible with a customer's TCP/IP stack installed from an unknown source. IP packets from an untested TCP/IP stack on the customer's LAN can affect the Meridian 1 switch.

Notes



Call Processing in the Symposium Express Call Center

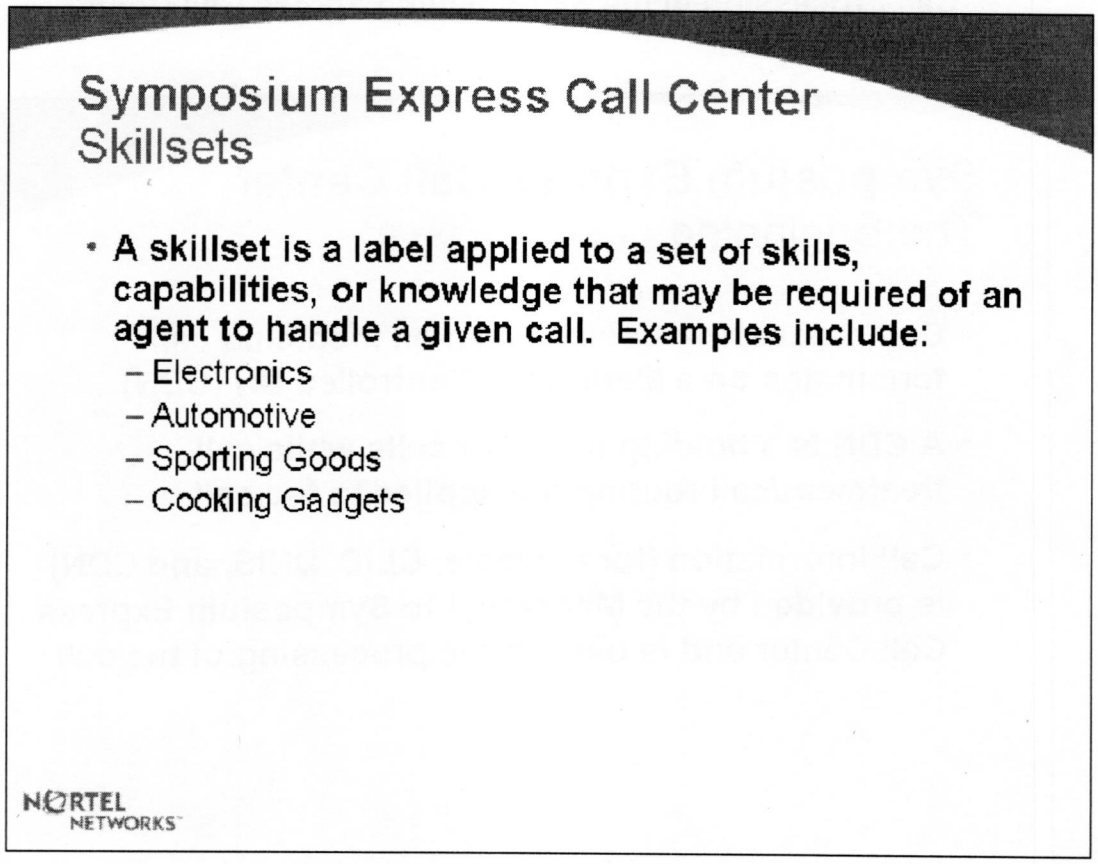
Figure 7: The Beginning Slide



Notes



Figure 8: Skillset Slide



Notes

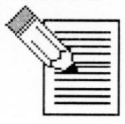
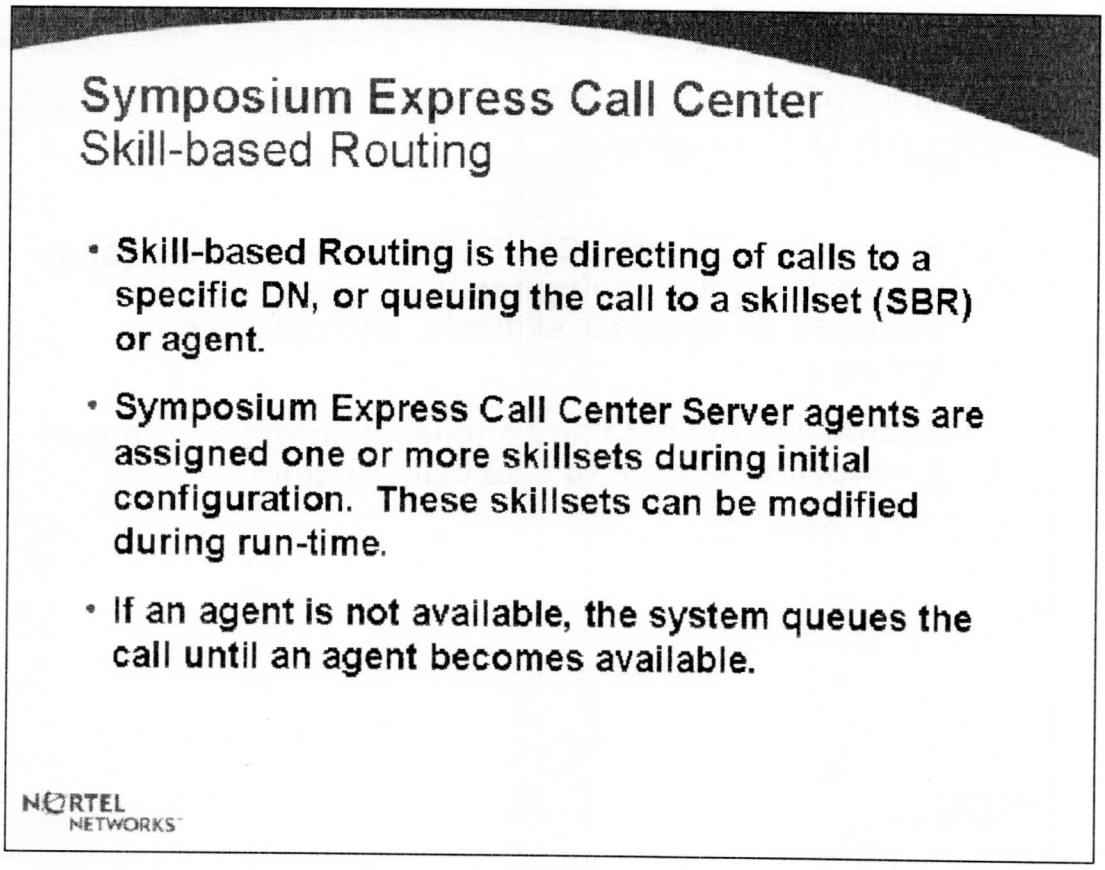
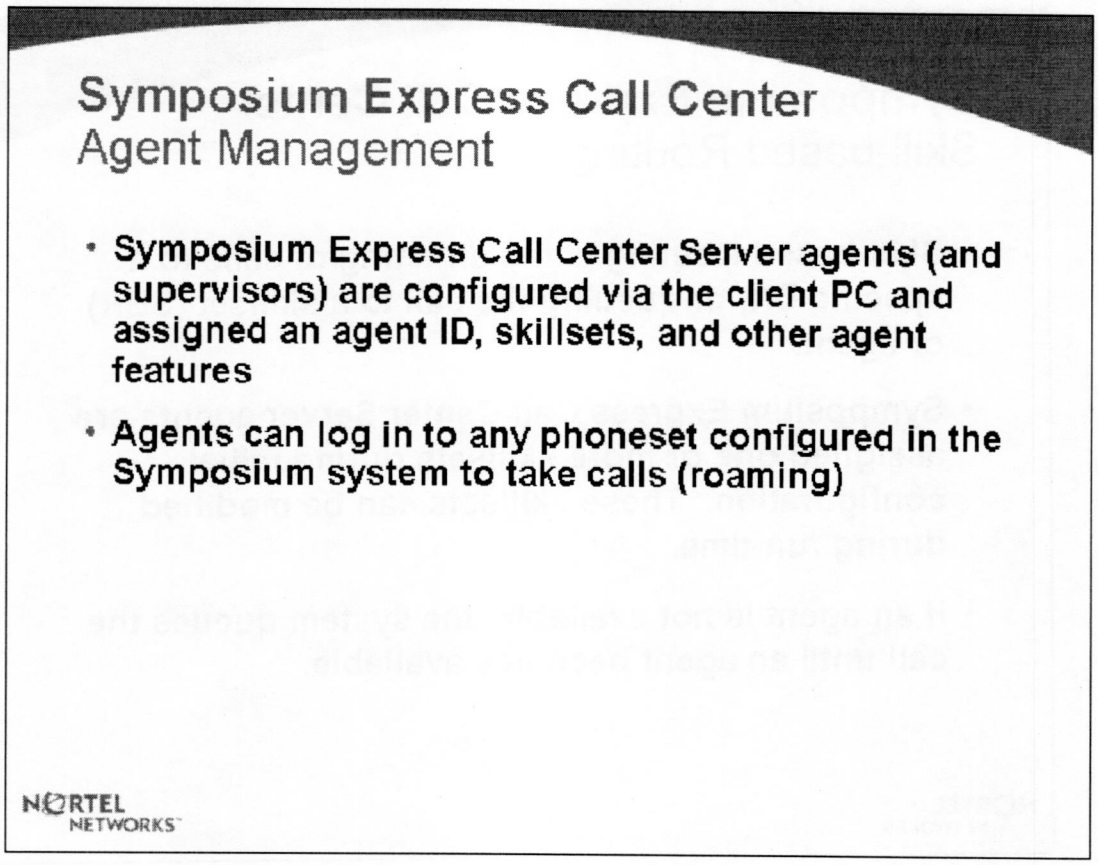


Figure 9: Skill Based Routing Slide



Notes

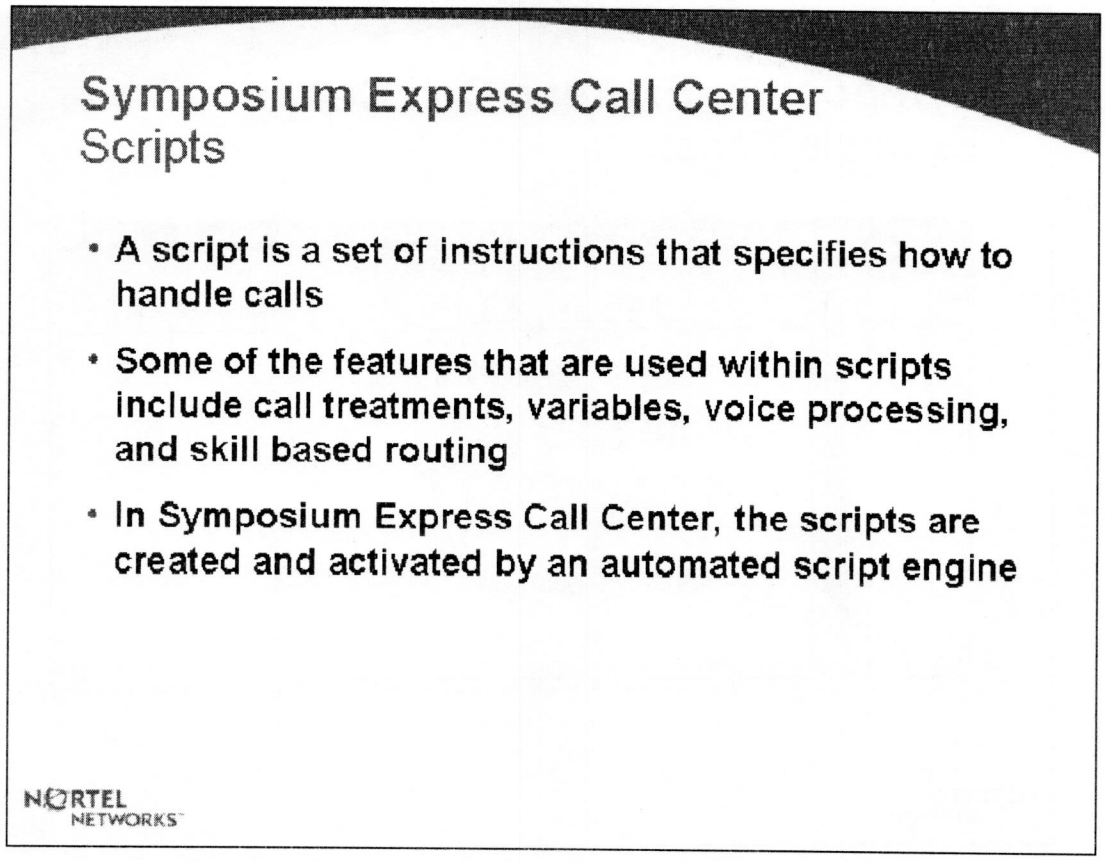
Figure 10: Agent Management Slide



Notes



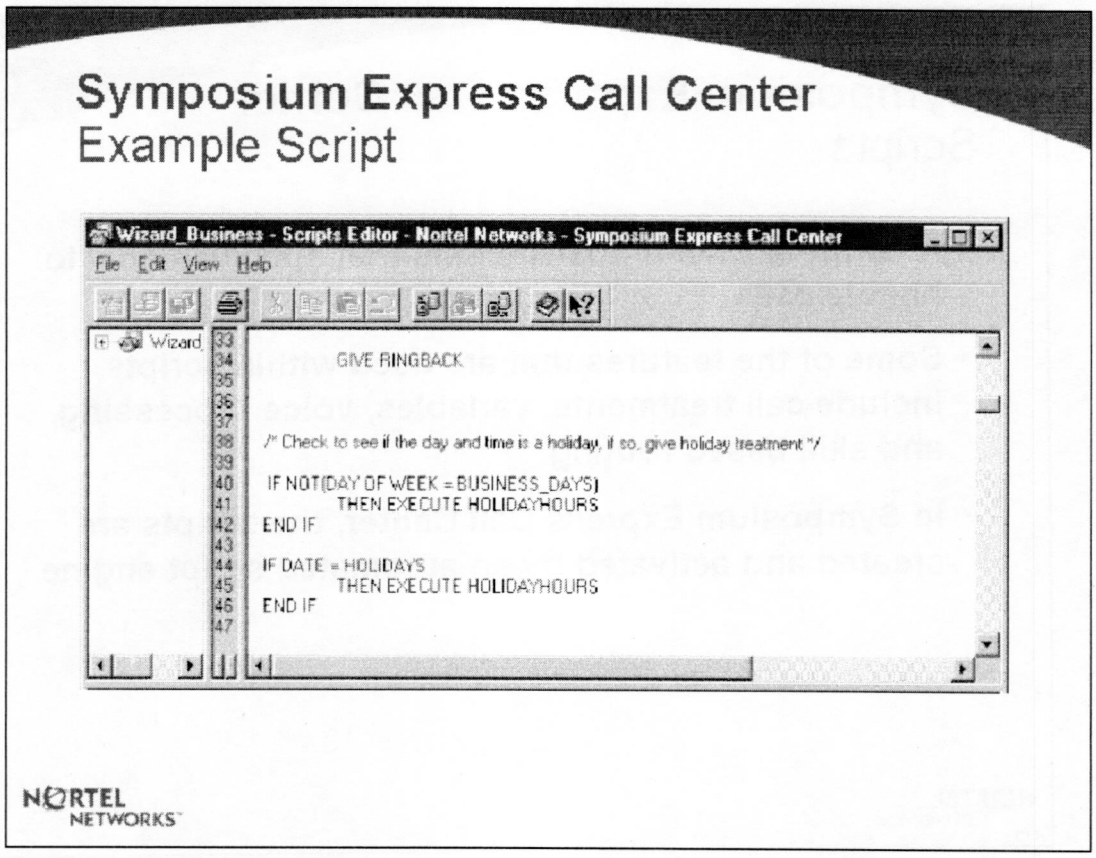
Figure 11: Scripts Slide



Notes



Figure 12: Example Script Slide



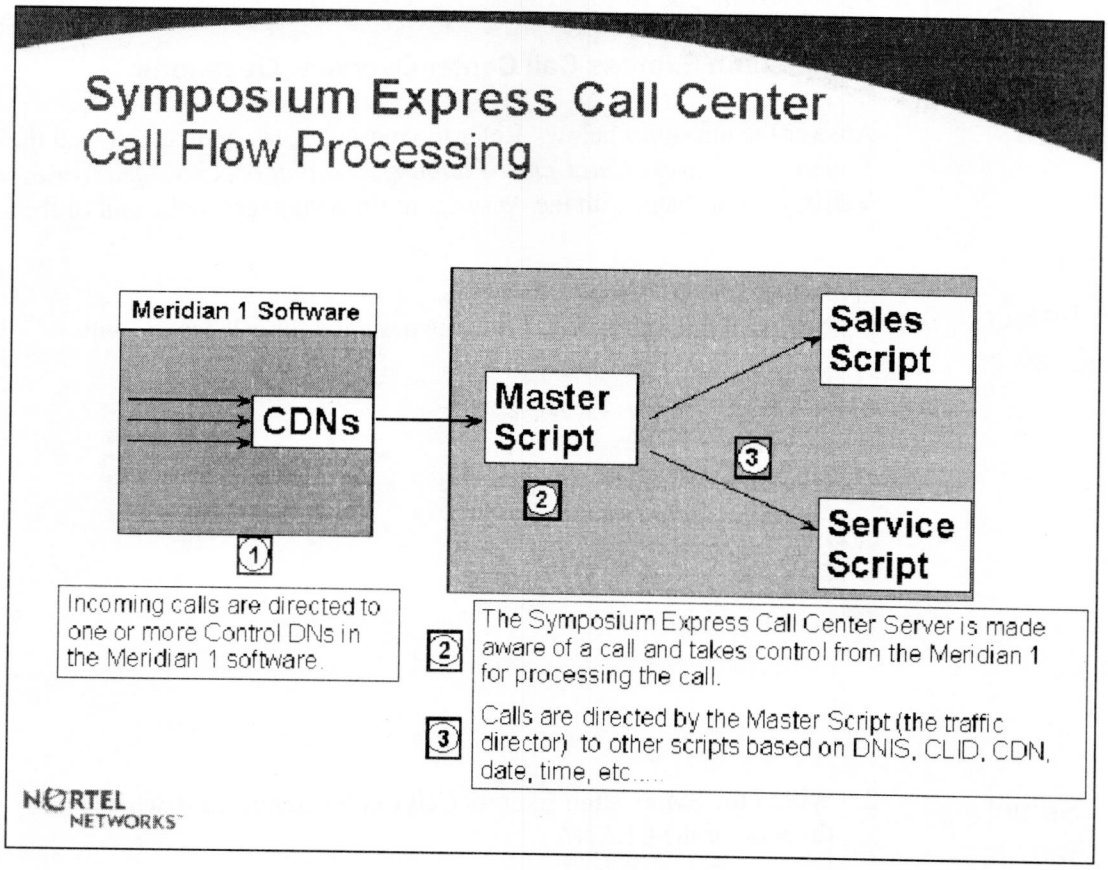
In Symposium Express Call Center, an automated script engine creates the scripts. The call treatment wizard inserts data that you enter on the wizard screens into correct places in the scripts.

Only a user with System Administrator access can view the scripts.

Notes



Figure 13: Call Flow Slide



Notes





Practice

Symposium Express Call Center Overview Questions

Answer the questions below. Refer to your notes, lesson material, and the *Symposium Express Call Center Planning, Installation, and Administration Guide*. Verify your answers with the Answers to Practice pages at the end of the lesson.

Select Answer

1. Symposium Express Call Center is designed for call centers with _____ active agents.

- a. 1-150
- b. 1-500
- c. 1-750
- d. More than 1000

Select Answer

2. Within the Symposium Express Call Center architecture, what is the function of the CLAN?

- a. To connect the Symposium Express Call Center server to the Symposium Express Call Center client PCs on the customer's LAN.
- b. To connect the Symposium Express Call Center server to the Meridian 1 switch.
- c. To connect the Symposium Express Call Center server to the Voice Services card in the Meridian 1 switch.
- d. All of the above

reset

Select Answer

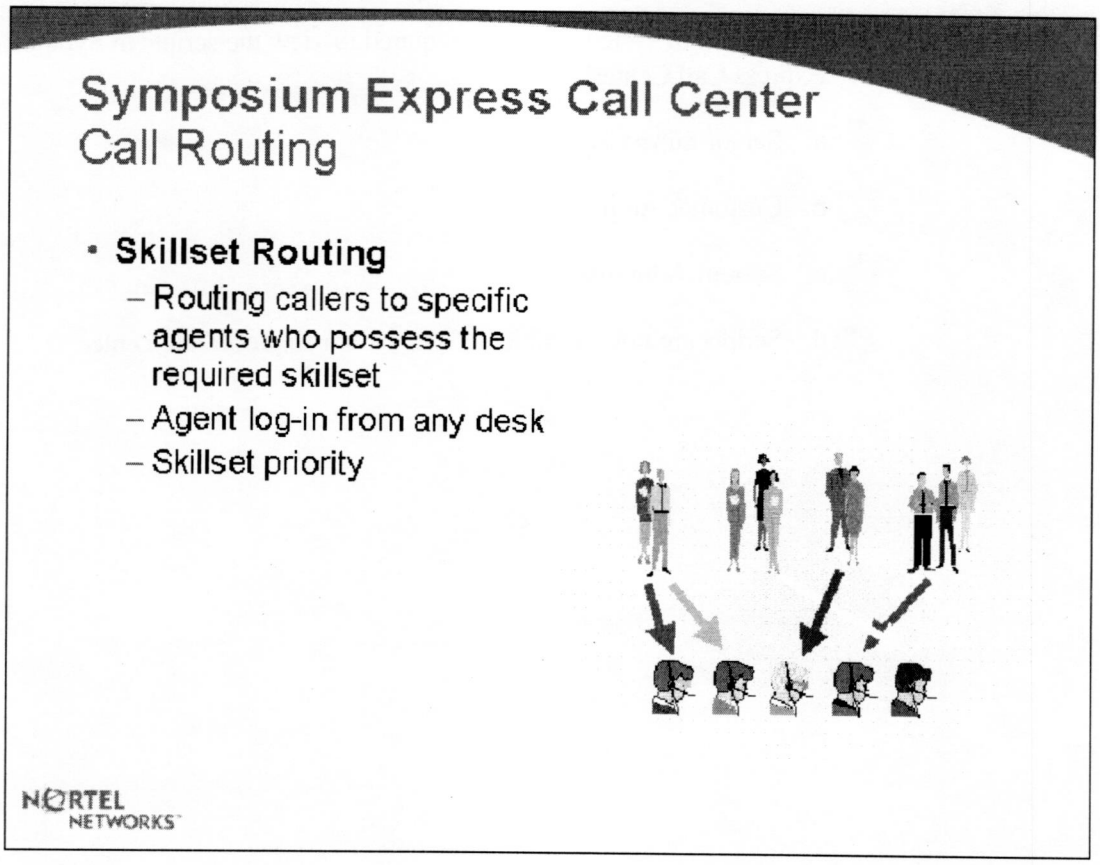
3. What level of system access is required to view the scripts in Symposium Express Call Center?

- a. Senior Supervisor
- b. Customer Administrator
- c. System Administrator
- d. Scripts are not viewable in Symposium Express Call Center

reset

Call Routing

Figure 14: Call Routing Slide



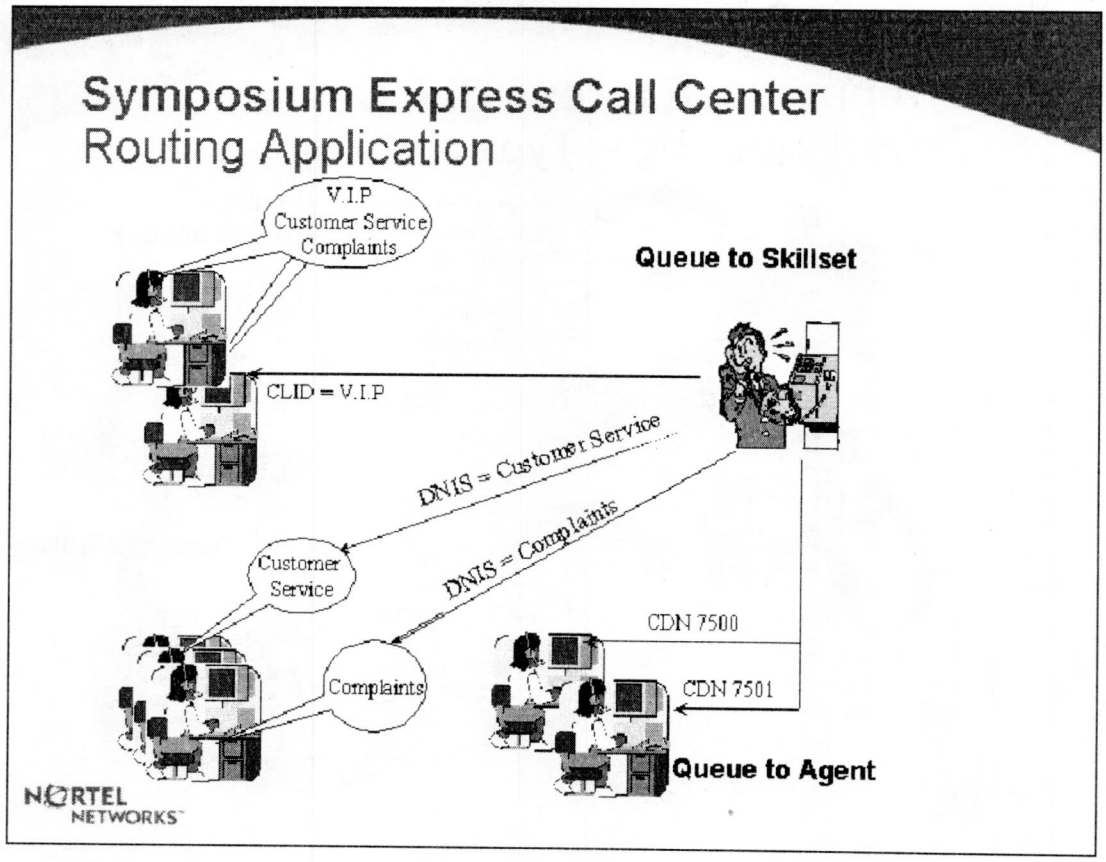
The Symposium Express Call Center client Graphical User Interface (GUI) provides a call routing wizard that hides the scripting language.

The Symposium Express Call Center client provides sophisticated call routing and management for call centers of up to 150 agents and 5,000 calls per hour. Up to 75 simultaneous client sessions are supported. This includes supervisor workstations and Real-time Interface (RTI) applications.

Notes



Figure 15: Routing Application Slide



When a call arrives at the call center, Symposium Express Call Center routing checks the Calling Line Identification (CLID) to give priority to special customers. If no CLID is matched in the script, then the Dialed Number Identification Service (DNIS) is checked. The call is then routed to the appropriate skillset based on the DNIS. If the DNIS is not available, the caller is routed to a skillset or agent based on the Controlled Directory Number (CDN), as specified by the customer in the routing wizard.

Notes

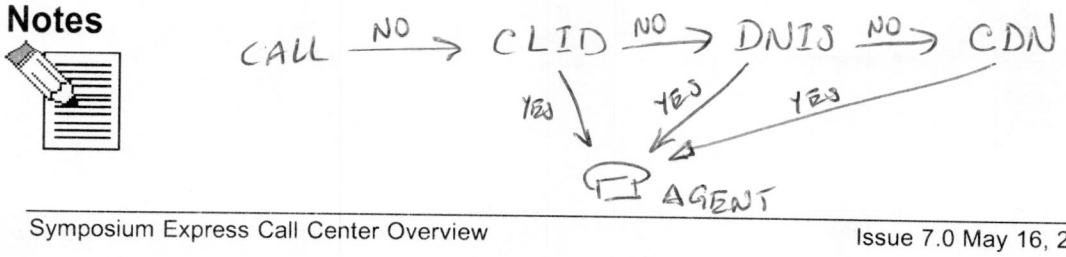
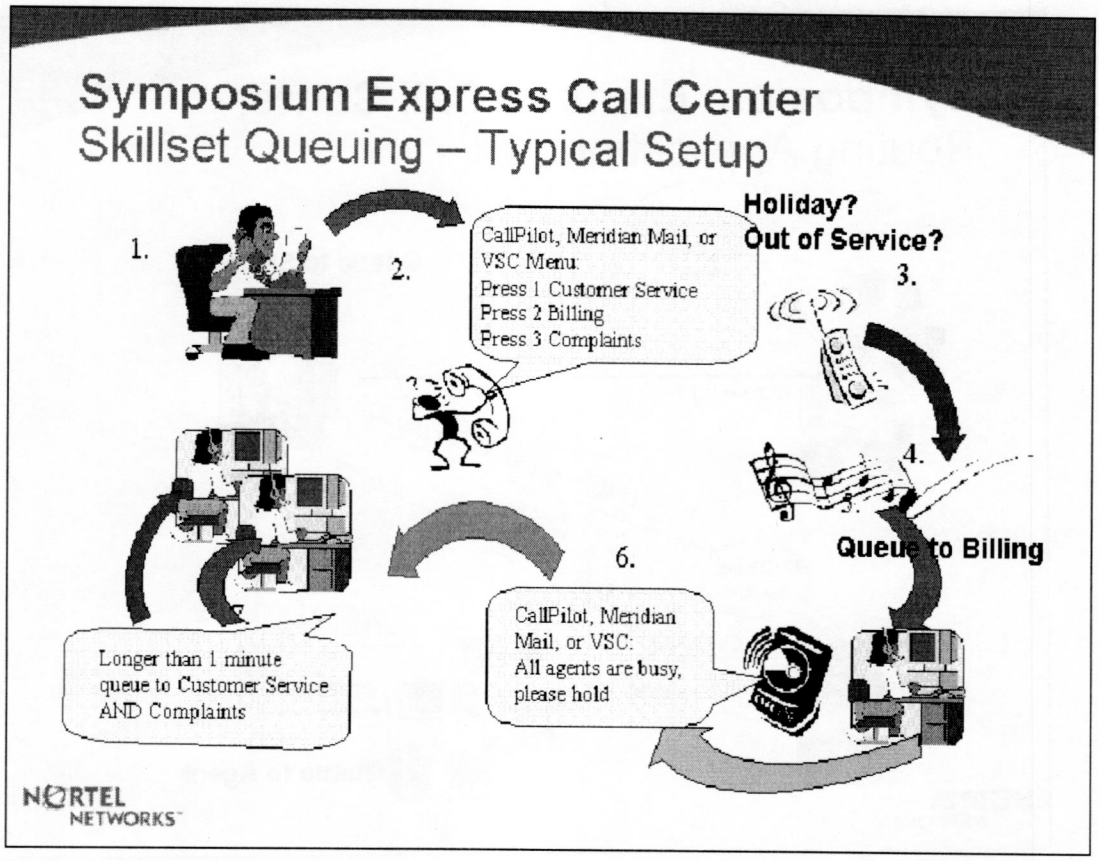


Figure 16: Skillset Queuing Slide



When customers call into the call center, a voice menu answers the call. The caller receives a menu prompt asking them to select a service.

In the example above, when the caller presses 2, the call is queued to the Billing skillset and the caller hears music while waiting. The script is designed to wait for one minute and then move the caller to additional skillsets named Customer Service and Complaints. A Recorded Announcement, RAN, is also played to the caller while waiting for an agent in either skillset.

Notes





Practice

Symposium Express Call Center Overview Questions

Answer the questions below. Refer to your notes, lesson material, and the *Symposium Express Call Center Planning, Installation, and Administration Guide*. Verify your answers with the Answers to Practice pages at the end of the lesson.

Select Answer

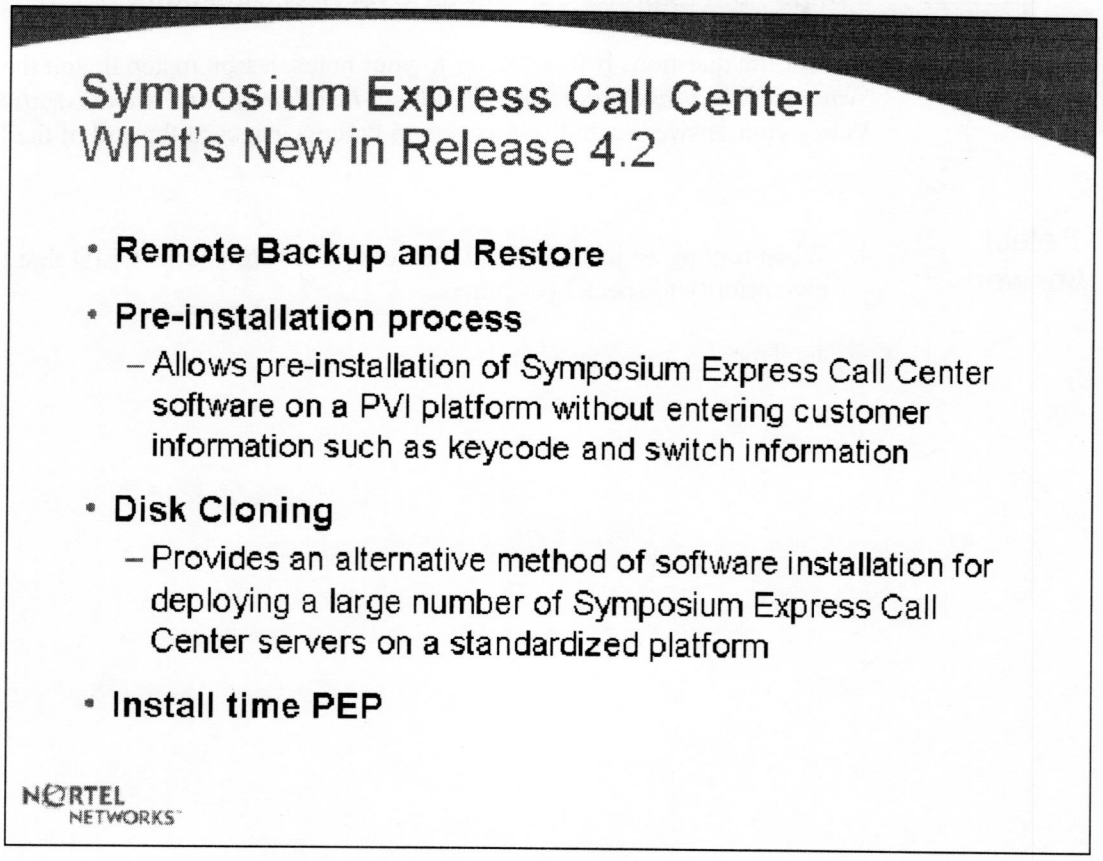
4. When routing an incoming call, the routing wizard checks CLID first to give priority to special customers.

- a. True
- b. False

reset

New Features in Release 4.2

Figure 17: Release 4.2 Features



The Symposium Express Call Center system administrator can perform a database backup and save the database backup onto a remote directory on a separate network PC. This feature allows the local system administrator to centralize and schedule all backup files onto one remote backup PC. This PC can be directly connected to a backup tape system to perform a system wide backup. The Symposium Express Call Center system still supports the existing local tape backup so the system administrators have the option to choose between a local tape backup or remote disk backup to best suit system requirements.

Notes



The installation and configuration process supports a pre-installation process, which allows the distributor to pre-install the Symposium Express Call Center server software on a PVI platform without entering the actual end customer information. This allows the distributor to pre-install several Symposium Express Call Center servers that will be available to be installed on customer sites, as required.

Symposium Express Call Center supports the use of disk cloning or ghosting to perform a complete backup of all files on the server PC. Disk cloning or ghosting can also be used as an alternative method of installation for a distributor or customer deploying a large number of Symposium Express Call Center servers on a standardized platform. This alternative method of installation, along with the pre-installation process, can reduce installation time by providing the installation technician with a pre-configured server that only needs the site specific and switch specific information to be added.

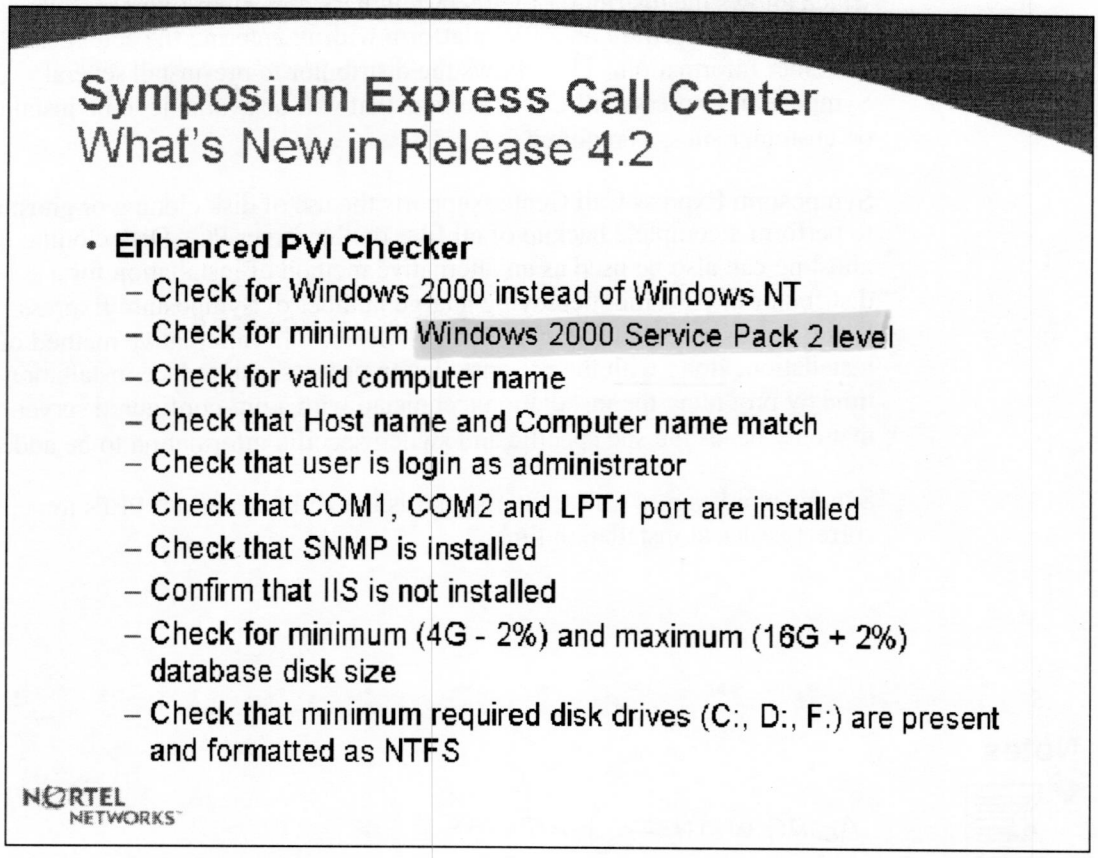
Symposium Express Call Center supports the ability to install PEPs to correct issues at installation time.

Notes



ALONG WITH = Junto con

Figure 18: Release 4.2 Features, Enhanced PVI Checker

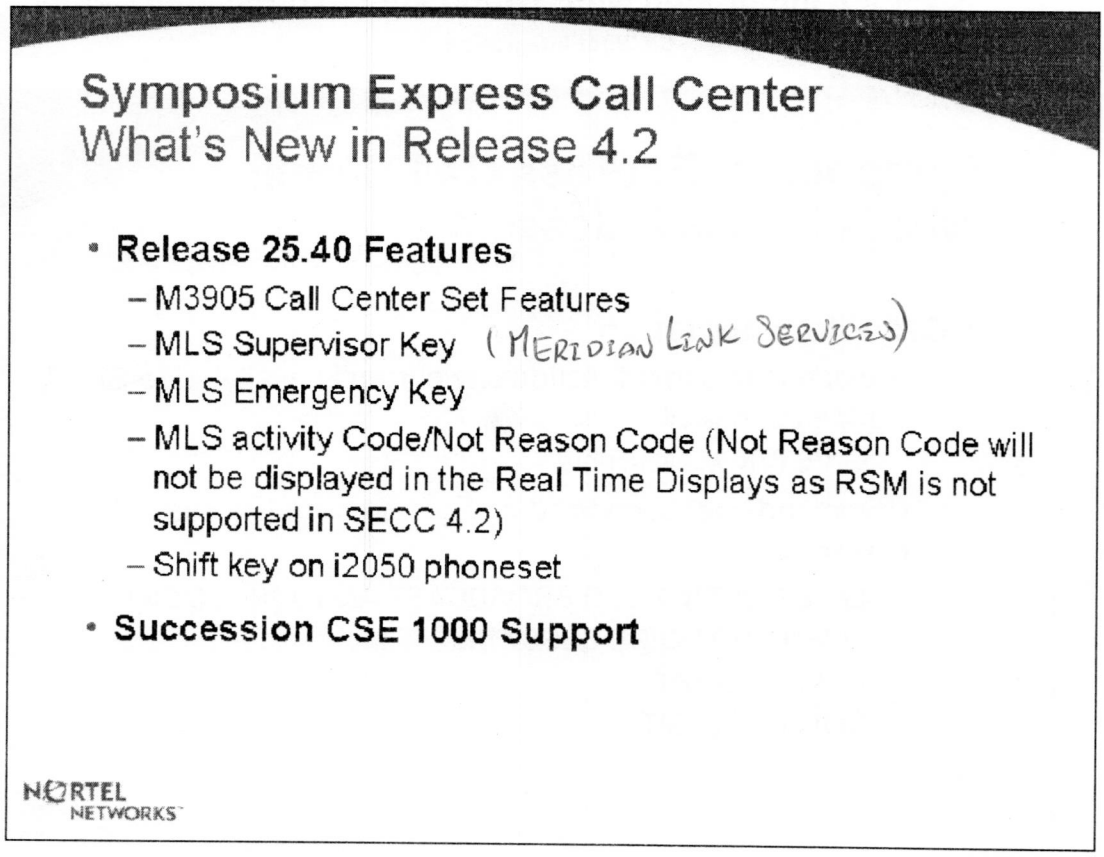


The PVI Platform Compliance Check utility verifies that the server platform meets the minimum configuration requirements.

Notes



Figure 19: Release 4.2 Features, Switch Hardware and Software



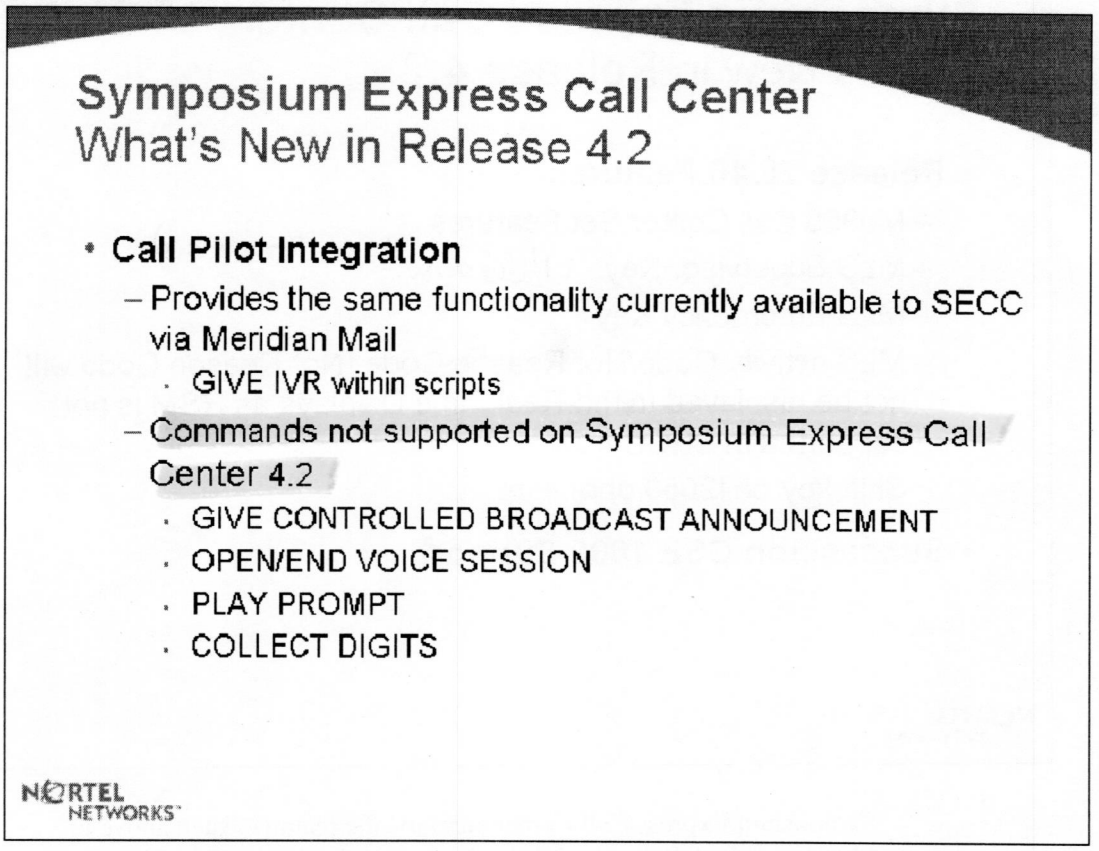
Symposium Express Call Center supports the features listed above in Meridian 1 X11 Release 25.40 and supports the Succession CSE 1000 switch.

Notes

MLS → Meridian Link Services

CallPilot Integration with Symposium Express Call Center

Figure 20: Release 4.2 Features, CallPilot Integration

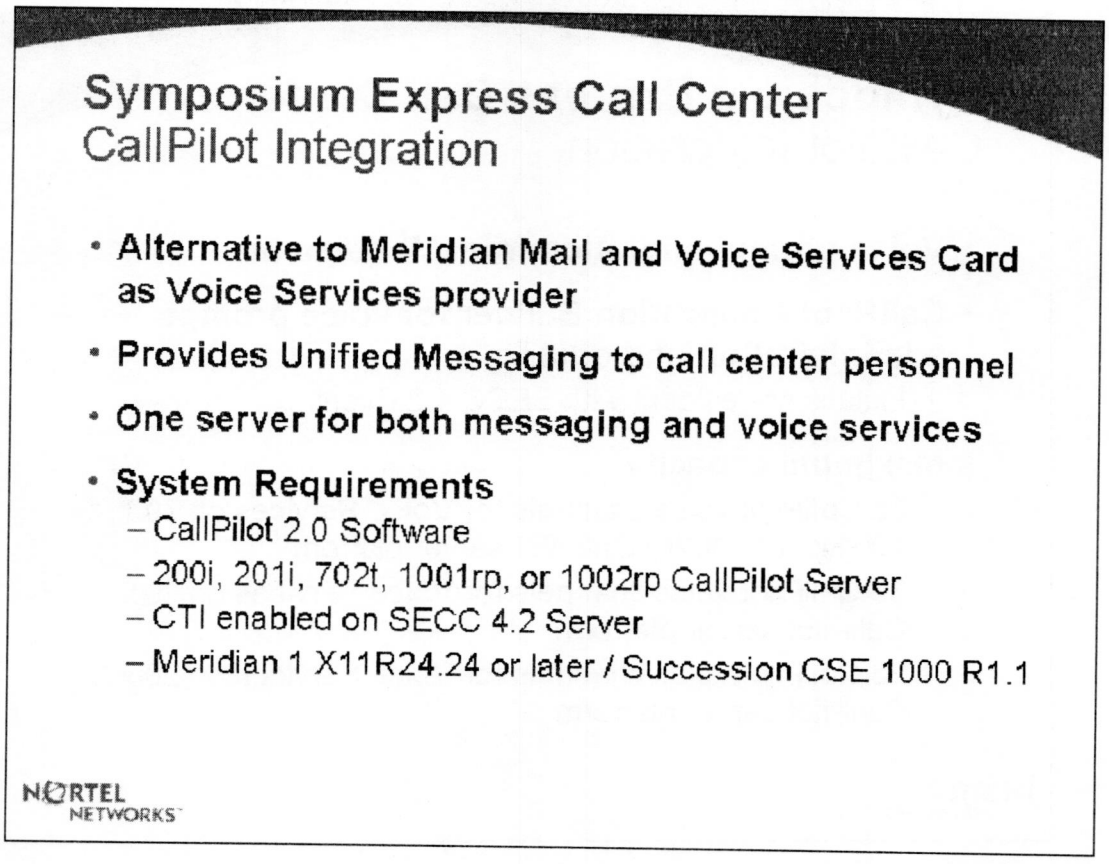


Symposium Express Call Center supports CallPilot integration. CallPilot provides the same voice services functionality that is currently available via Meridian Mail.

Notes



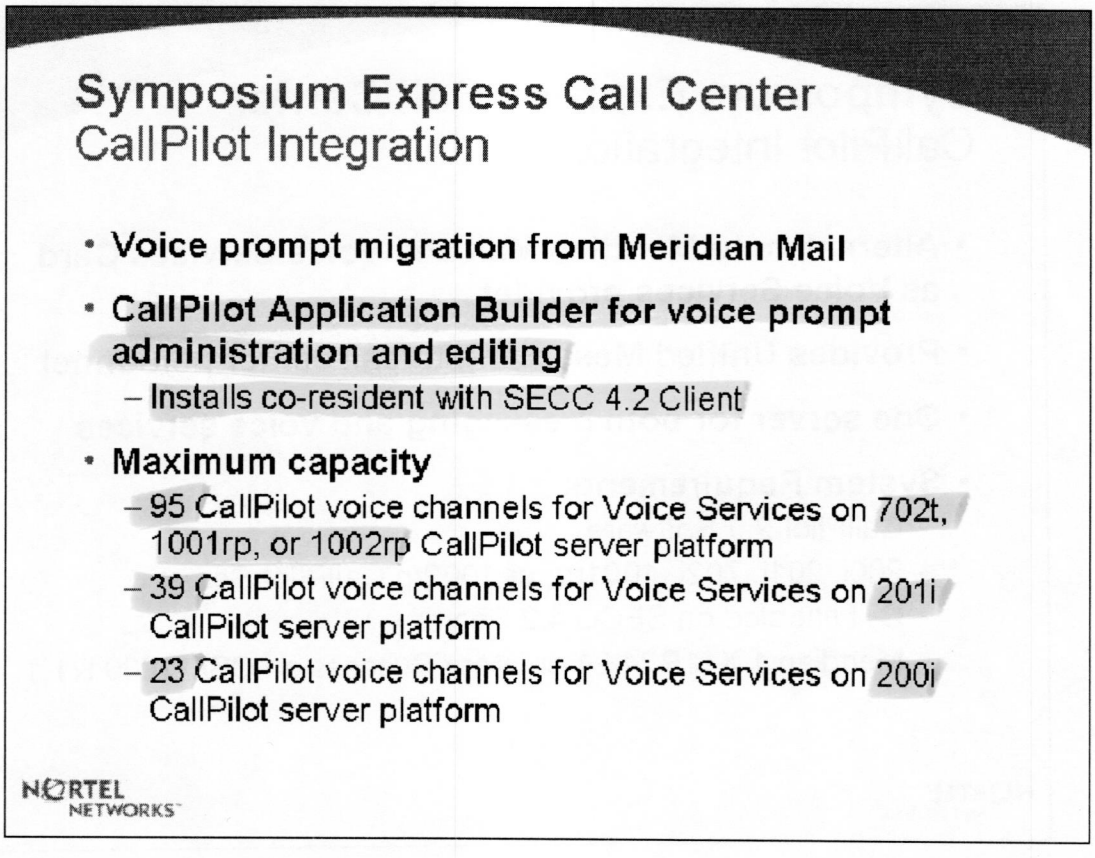
Figure 21: Release 4.2 Features, CallPilot Integration System Requirements



Notes



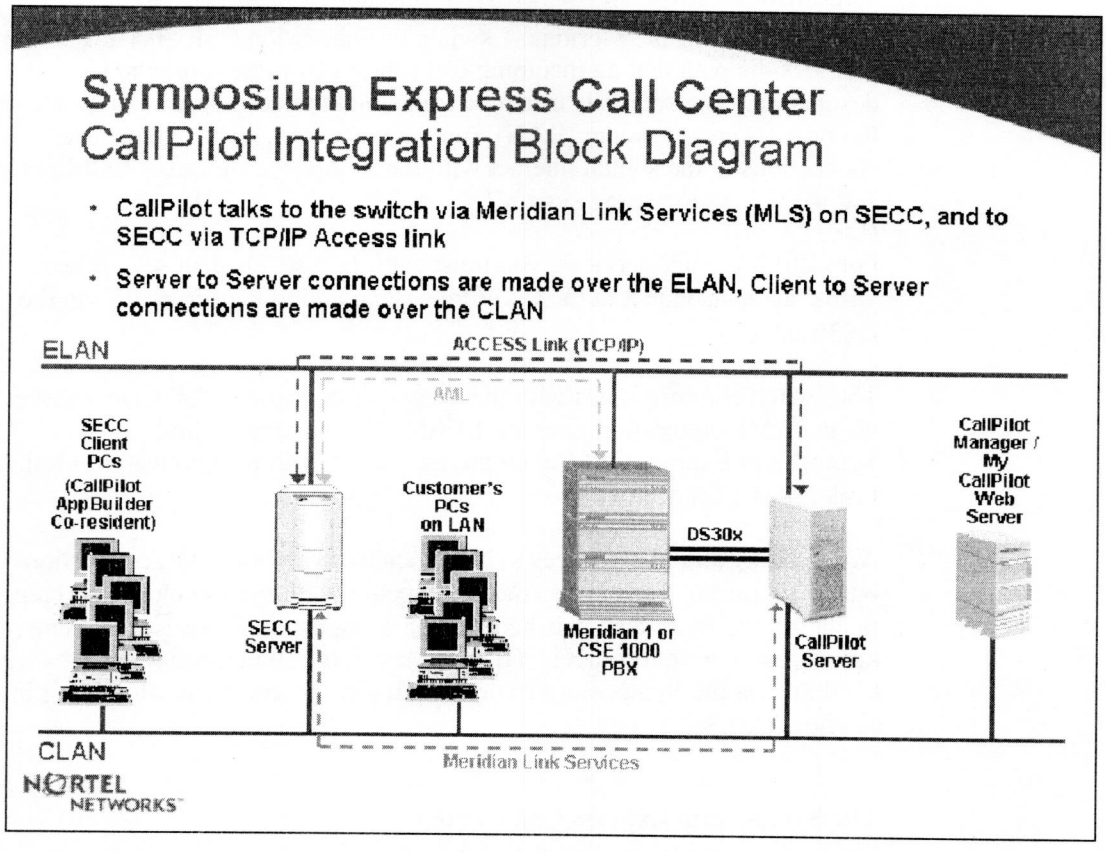
Figure 22: Release 4.2 Features, CallPilot Integration Migration, Administration, and Capacity



Notes



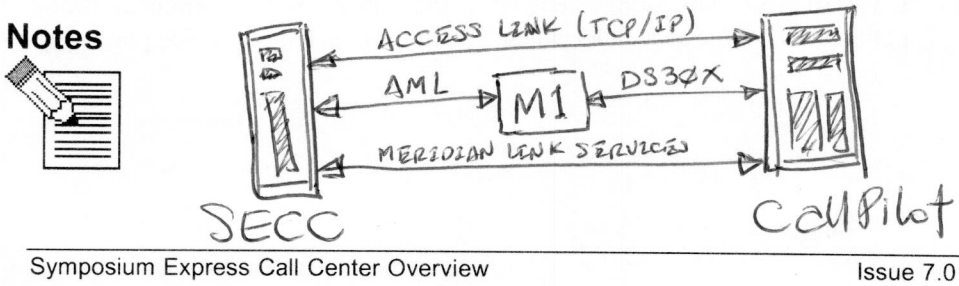
Figure 23: Release 4.2 Features, CallPilot Integration Block Diagram



How the Subsystems Interact

Before you learn how to configure the CallPilot system to provide voice services for your Symposium Call Center Server, you need to understand how the various subsystems interact with each other.

Notes



The Switch

In the call center, the Meridian 1 switch or Succession CSE 1000 system provides the path that an incoming call follows from its source to its destination. The source is usually a trunk, and the destination can be a Recorded Announcement (RAN) trunk, a voice port, or an agent. The connections to the switch interact with the Symposium Express Call Center and the voice processing system.

For CallPilot voice services, you must configure ACD agent sets. The virtual agents connect to the CallPilot system and to the server PC via the DS30 cable.

The switch communicates with the Symposium Express Call Center server via the AML connection over the ELAN. Resources acquired by Symposium Express Call Center are associated with its Application Module Link (AML) connection.

Note: AML allows resources to be associated with one AML connection only. Therefore, CallPilot's AML connection with the switch cannot be used to control the voice channels because the Symposium Express Call Center has acquired these resources. For this reason, the switch communicates with CallPilot via the Symposium Express Call Center server and Meridian Link Services (MLS).

The Symposium Express Call Center

The Symposium Express Call Center acquires voice port terminal numbers (TNs) from the switch via AML, and voice port channels from CallPilot via the ACCESS Link.

As the server executes scripts, it instructs the switch, via AML, to set up the paths to connect the incoming call to voice ports, agents, or RAN trunks and to provide ringback and busy tone treatments, as required.

Symposium Express Call Center also communicates with CallPilot to instruct it to play prompts or collect digits input from callers, as required by the script. IVR messages between the server and CallPilot travel on the Customer LAN (CLAN), using the Meridian Link interface. Voice processing messages between the server and CallPilot use the Application Module Link (AML) protocol. These messages travel over the Embedded LAN (ELAN). The prompts and script commands offer different ways of playing a message to a caller when a call is connected to a voice port.

The CallPilot System

On CallPilot, channels are partitioned for CallPilot Messaging and Symposium Voice Services. The Symposium Express Call Center server accesses CallPilot voice services with the Give IVR script command.

Meridian Link

Meridian Link is an interface used for communication between a host application and the switch. The host processor exchanges application layer messages with the switch over this link.

Note: The Give IVR command with Symposium Voice Services on CallPilot requires Meridian Link.

Meridian Link Services

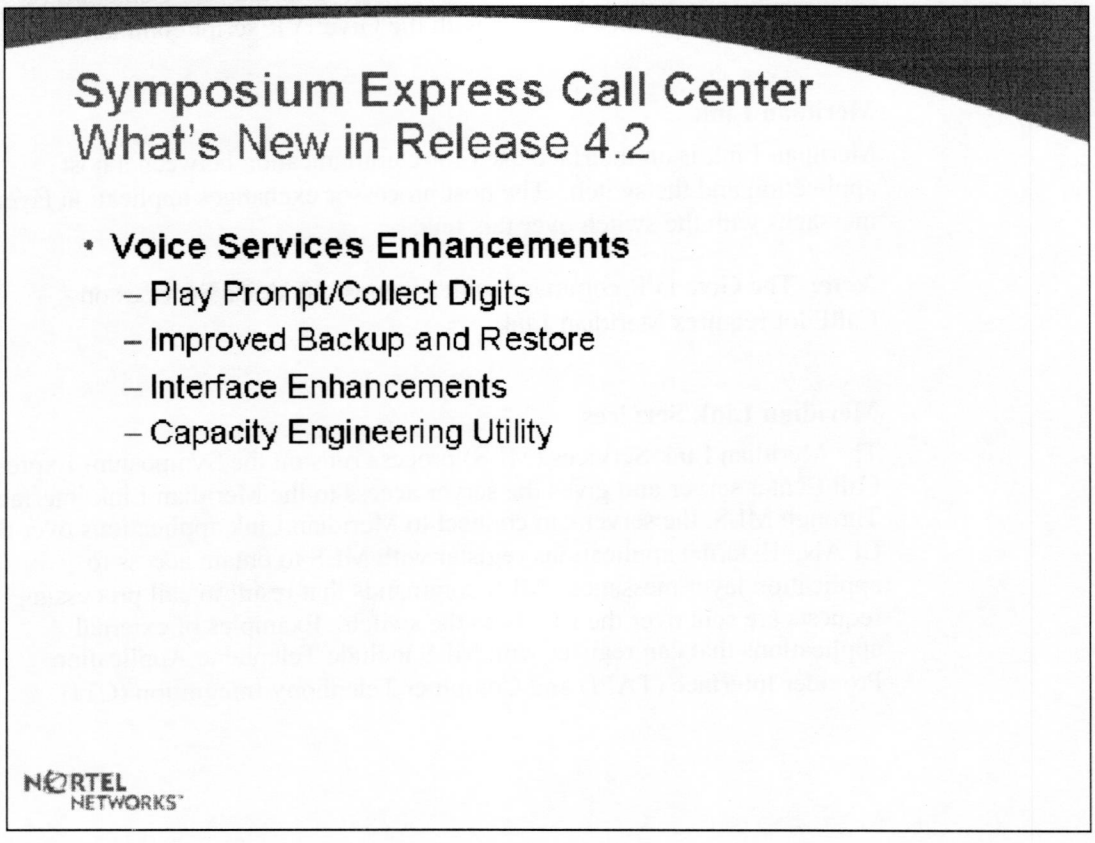
The Meridian Link Services (MLS) process runs on the Symposium Express Call Center server and gives the server access to the Meridian Link interface. Through MLS, the server can connect to Meridian Link applications over the CLAN. External applications register with MLS to obtain access to application layer messages. MLS commands that result in call processing requests are sent over the ELAN to the switch. Examples of external applications that can register with MLS include Telephone Application Provider Interface (TAPI) and Computer Telephony Integration (CTI).

Notes



Voice Services Card Enhancements

Figure 24: Release 4.2 Features, Voice Services Card Enhancements



Play Prompt/Collect Digits

The Play Prompt/Collect Digits feature allows a call center to collect digit information from customers and use TAPI Service provider to display this information on an agent's desktop (Screen pop). Nortel Networks recommends that you implement the agent client display with Symposium Agent software. It is possible, however, to use a third-party screen pop application as long as it is compliant with Nortel Network's Symposium TAPI service provider and the Meridian 1 or Succession CSE 1000 switch. This feature can be used to collect customer information, such as a customer's account number.

Voice Service Backup/Restore

The Voice Service Backup/Restore application backs up the system registry along with the Voice Service database. This ensures that the backup file holds a more complete record of the Voice Service configuration. The system registry data is restored when the Voice Service database is restored.

Voice Service Interface Enhancements

With Symposium Express Call Center Release 4.2, the Voice Service Interface has been modified to prevent incorrect settings.

Voice Service Engineering and Capacity Tool

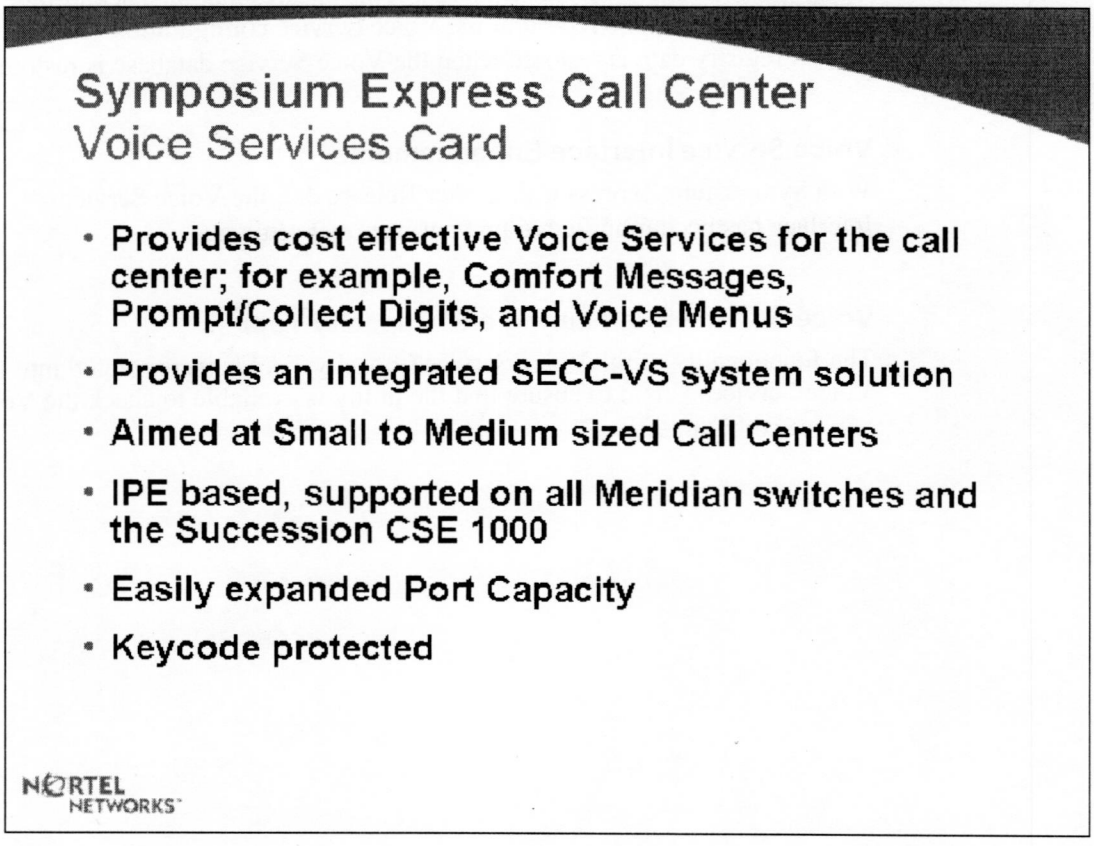
The functionality of the Voice Service Capacity Tool is incorporated into the Voice Services Client to ensure that the utility is available to check the Voice Service configuration.

Notes



Voice Services Card Overview

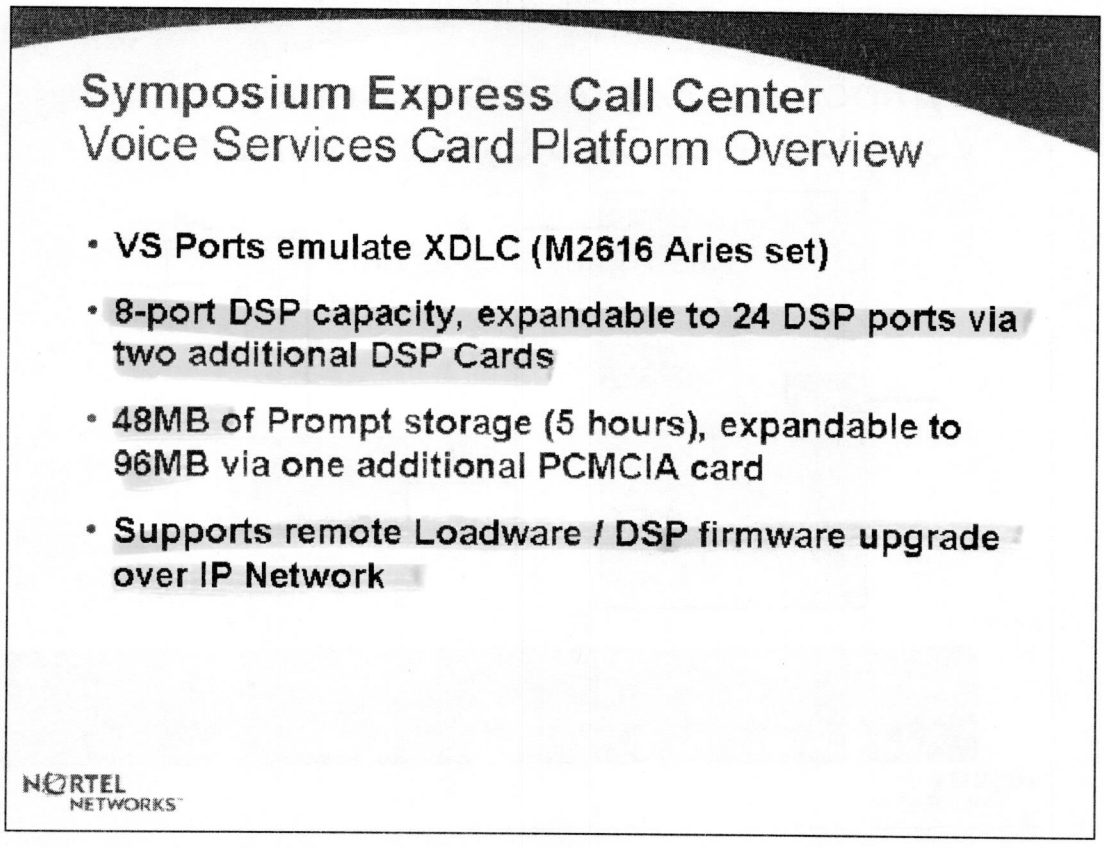
Figure 25: Voice Services Card Slide



Notes



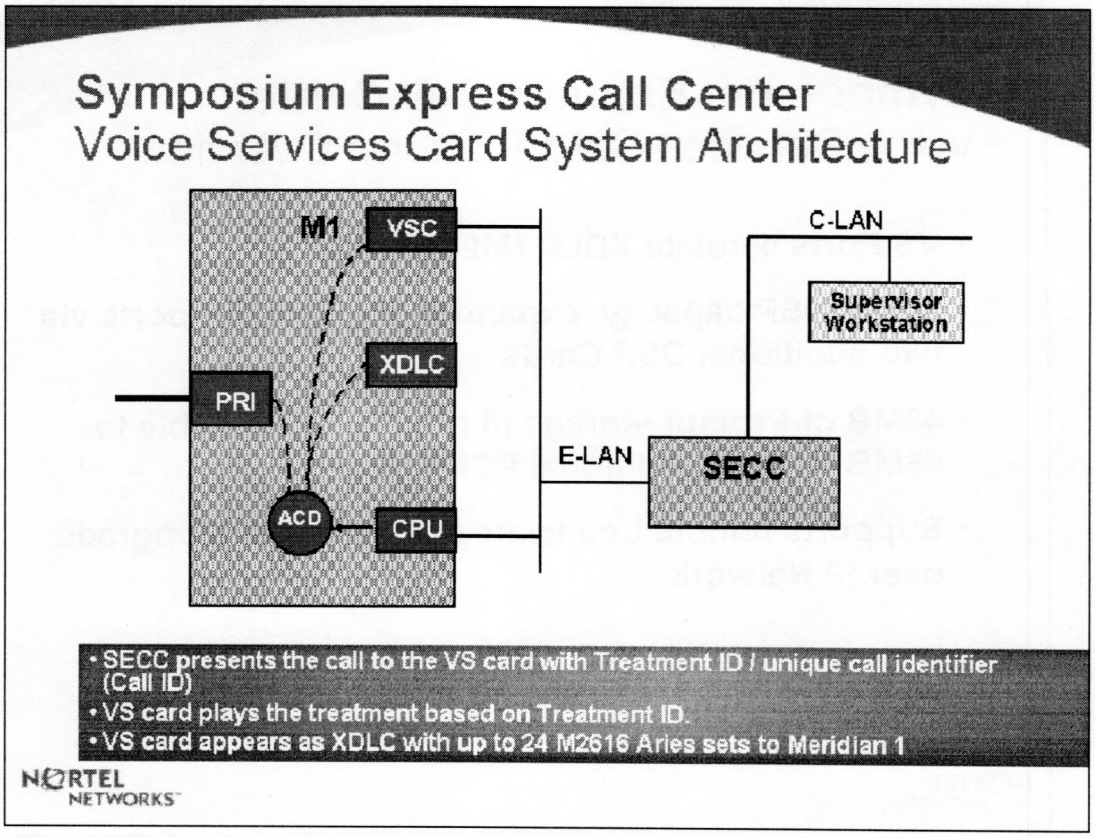
Figure 26: Voice Services Card Platform Overview Slide



Notes



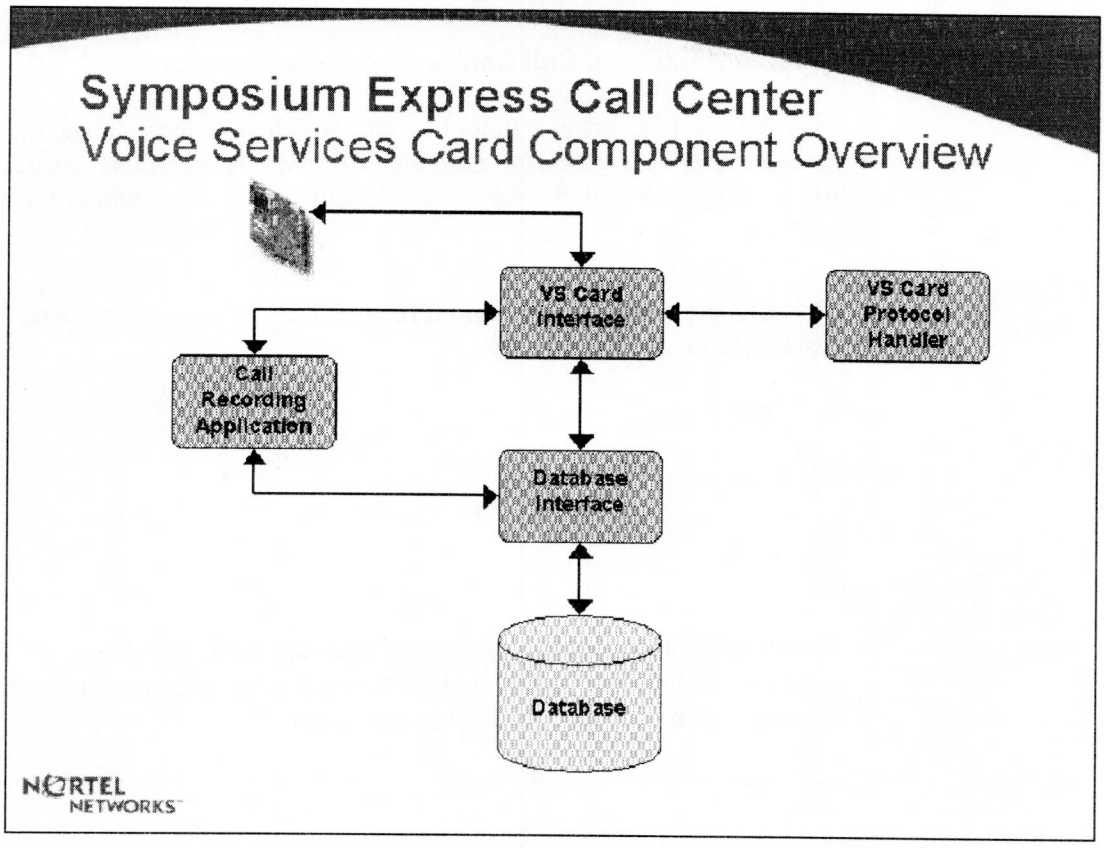
Figure 27: Voice Services Card System Architecture Slide



Notes



Figure 28: Voice Services Card Component Overview Slide



Notes





Practice

Symposium Express Call Center Overview Questions

Answer the questions below. Refer to your notes, lesson material, and the *Symposium Express Call Center Planning, Installation, and Administration Guide*. Verify your answers with the Answers to Practice pages at the end of the lesson.

Select Answer

5. For database backups, Symposium Express Call Center only supports backup to the local tape drive.

   a. True

   b. False

Select Answer

6. With CallPilot integrated with your Symposium Express Call Center, a single CallPilot server can provide both voice services to incoming calls and unified messaging to call center personnel.

   a. True

   b. False

reset

Select Answer

7. Which operating system is required for the installation of the Symposium Express Call Center server?

- a. Windows 2000 Server
- b. Windows 2000 Advanced Server
- c. Windows 2000 Professional Server
- d. Windows NT 4.0 Server

Select Answer

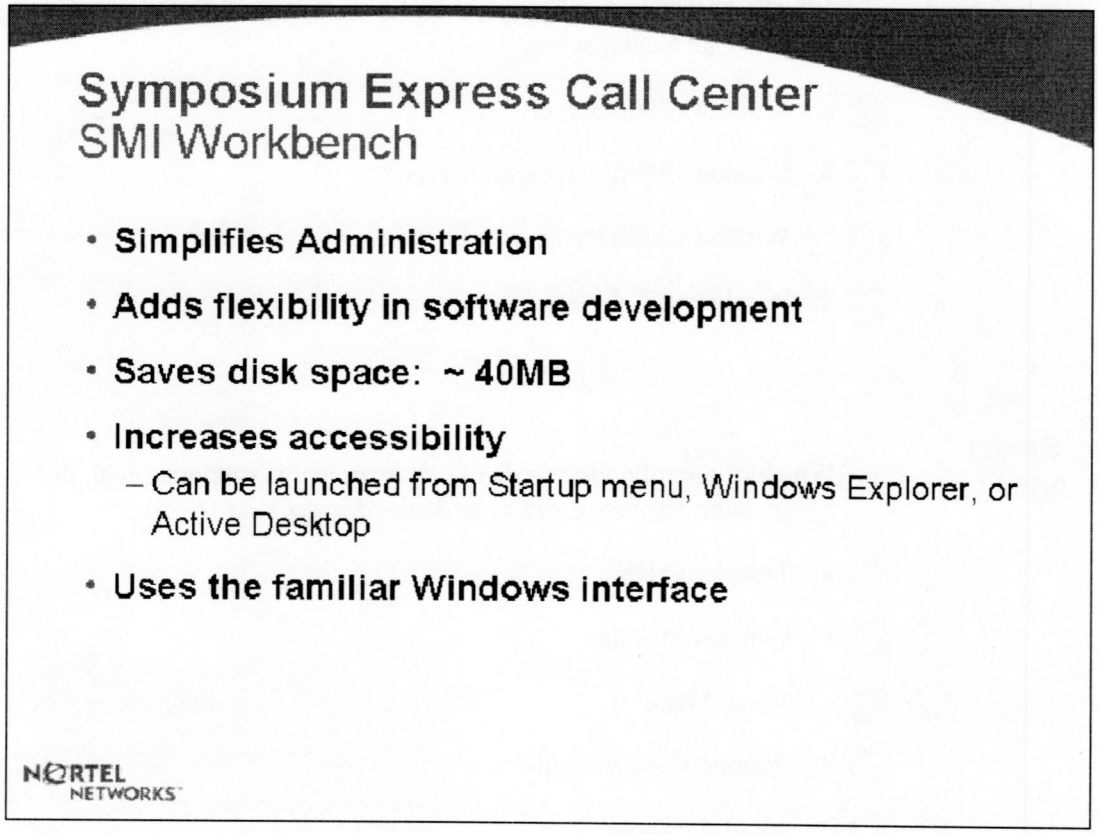
8. Which of the following types of call treatment is supported with the Symposium Express Call Center Voice Services card?

- a. Transfer to DN
- b. Comfort Message
- c. Voice Menu
- d. Prompt/ Collect Digits
- e. All of the above

reset

Symposium Express Call Center Administration

Figure 29: The SMI Workbench

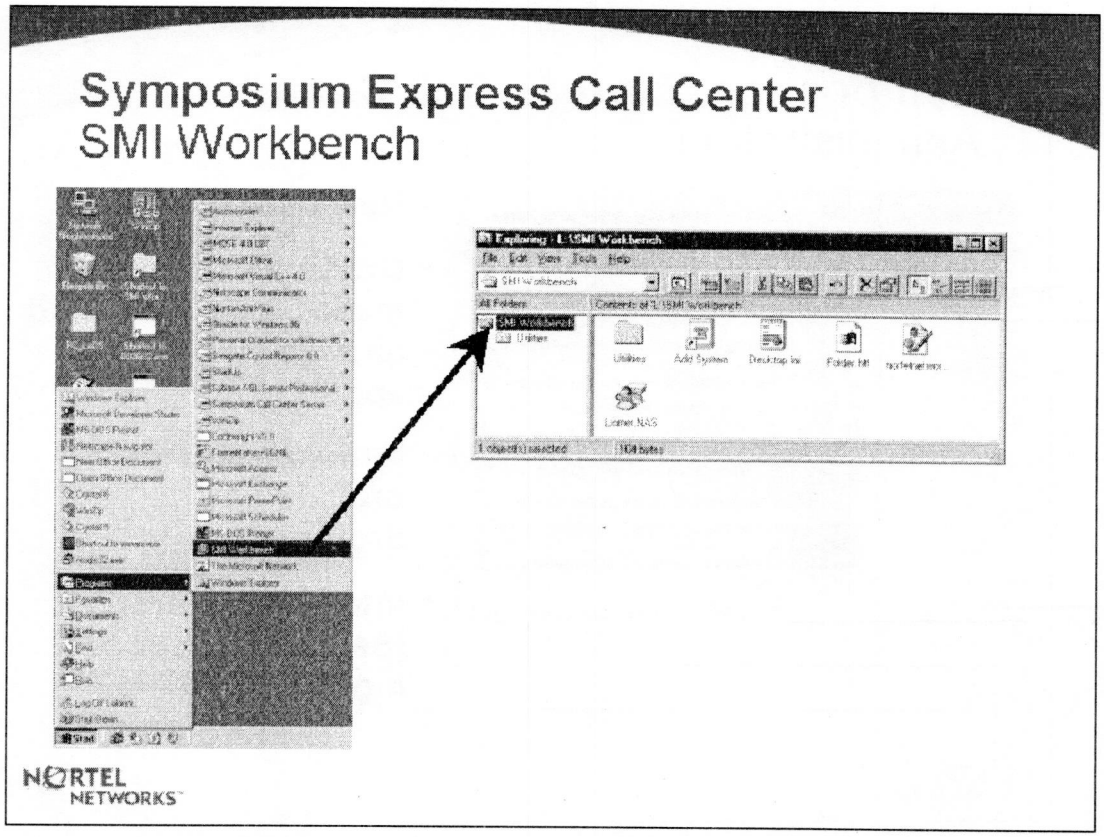


The SMI Workbench is a Windows environment that allows users to define, manage, and organize Symposium server administration software from the client PC.

Notes



Figure 30: Launching the SMI Workbench

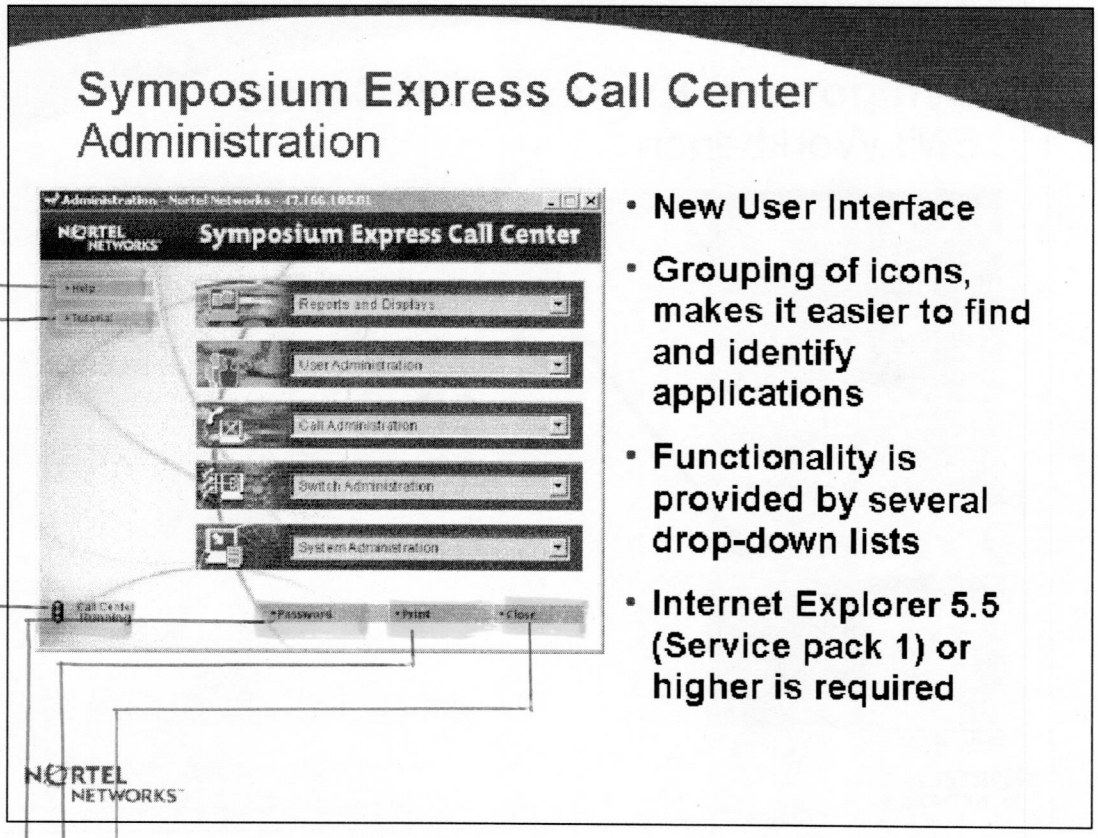


The user creates server shortcuts on the client PC desktop. This process is known as adding a system. The shortcut contains the information needed to connect to the server. The shortcut icon is the launching point for Symposium Express Call Center client administration software. The user can group servers on the SMI workbench to reflect organizational architecture.

Notes



Figure 31: Main Client Window



Administrative Tasks

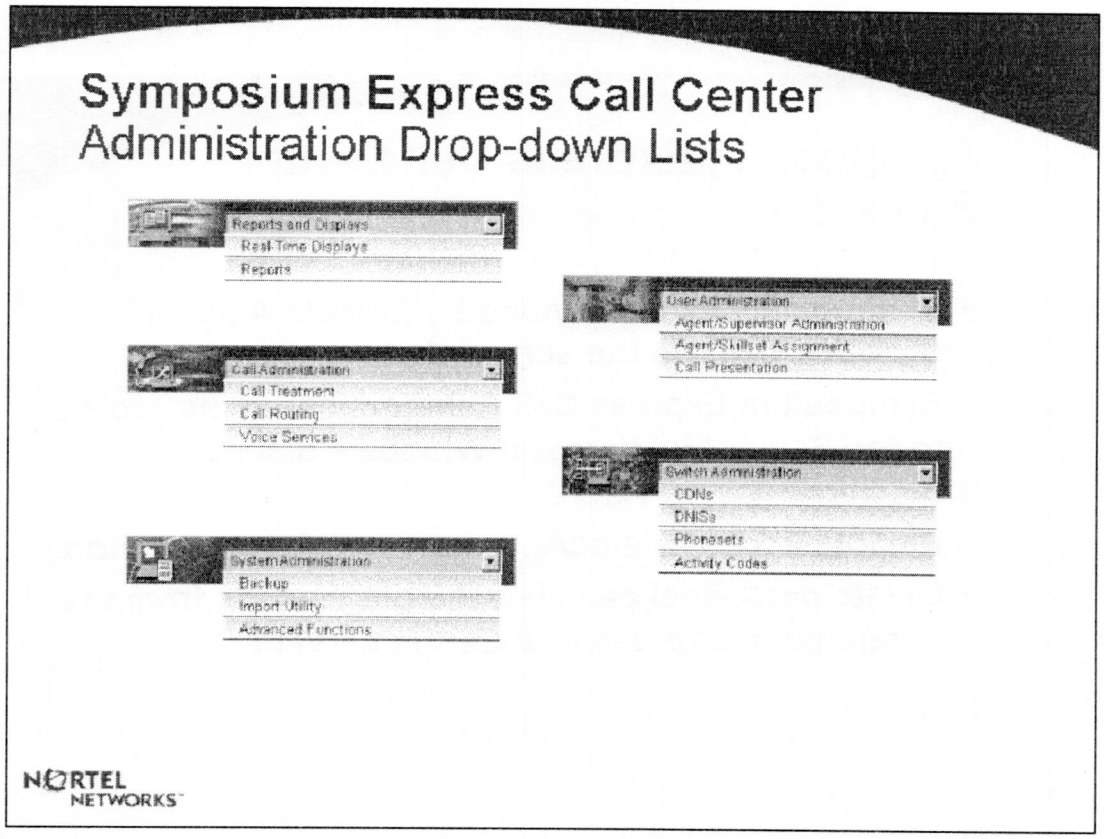
The Administration window contains icons and hot buttons that provide the following functionality:

- Run tutorials and view online documentation
- View online Help
- Change password
- View and print the Call Center Configuration report
- Shut down the call center
- Close all of the windows and disconnect from the Symposium Express Call Center

Notes



Figure 32: Administration Drop-down Lists



Administration Drop-down Lists

All other administrative tasks are accessed through five drop-down lists:

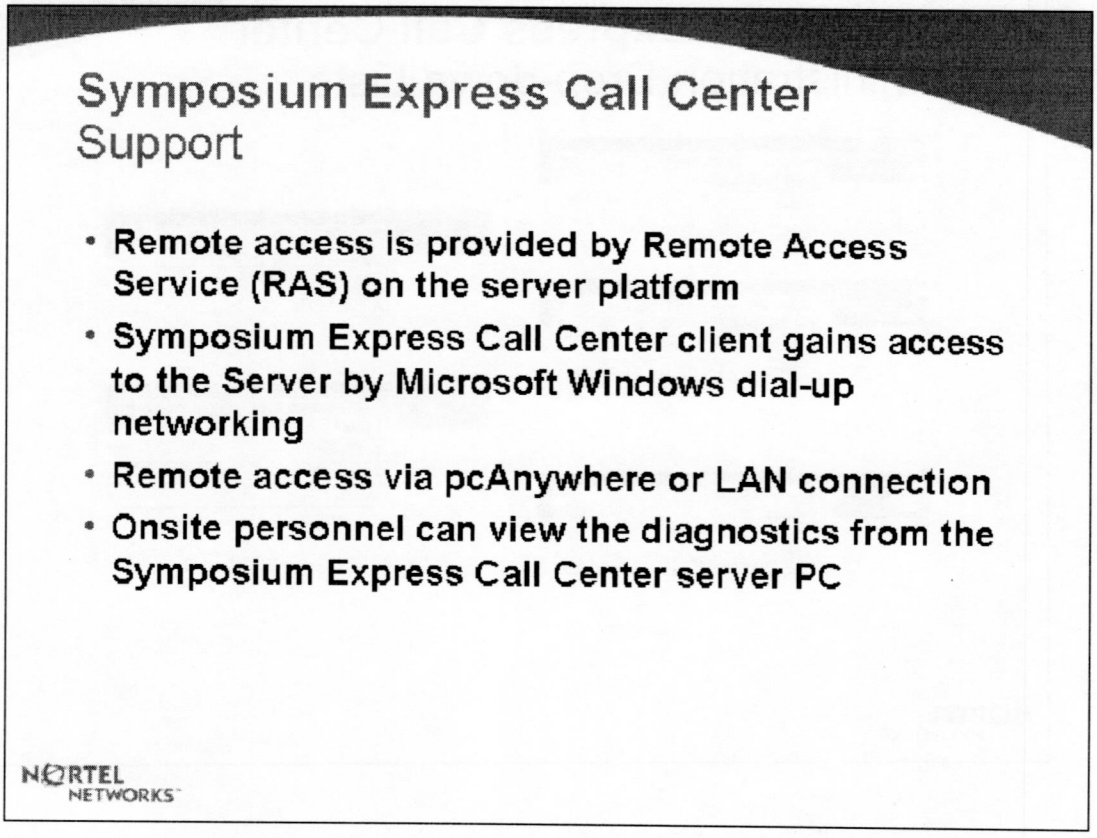
- Reports and Displays
- User Administration
- Call Administration
- Switch Administration
- System Administration

Notes



Symposium Express Call Center Support

Figure 33: Support Slide



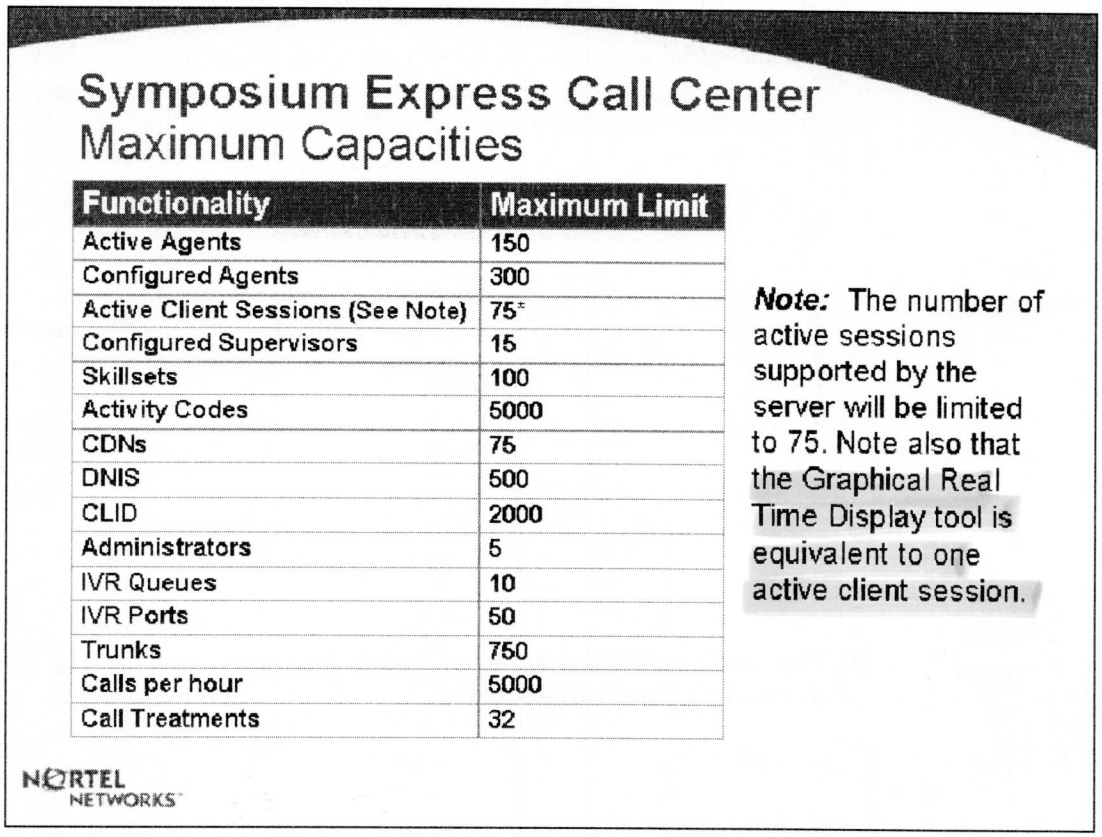
For remote support purposes, the Remote Access Service (RAS) must be configured in Windows NT on the Symposium Express Call Center server PC. The pcAnywhere program is installed as part of the server installation. This application provides access to the server via Microsoft Windows dial-up networking or through a LAN connection to the server.

Tip: *Symposium Express Call Center is a software only product.*

Notes

Symposium Express Call Center Maximum Capacity

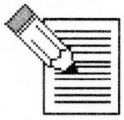
Figure 34: Maximum Capacities Slide



The table above illustrates the maximum capacity of the Symposium Express Call Center product.

Note: The number of active sessions supported by the server is limited to 75. This can be increased to 100, but is dependant on capacity testing.

Notes





Practice

Symposium Express Call Center Overview Questions

Answer the questions below. Refer to your notes, lesson material, and the *Symposium Express Call Center Planning, Installation, and Administration Guide*. Verify your answers with the Answers to Practice pages at the end of the lesson.

Select Answer

9. Internet Explorer 5.5 (Service pack 1) or higher is required for the Symposium Express Call Center client application and must be installed on any PC where the client will be run.

- a. True
- b. False

Select Answer

10. What is the maximum number of Agents that can be configured on Symposium Express Call Center?

- a. 150
- b. 300
- c. 500
- d. 1000

reset



Answers to Practice

Symposium Express Call Center Overview Questions

Check your answers to the practice.

1. Symposium Express Call Center is designed for call centers with _____ active agents.

   a. 1-150

   b. 1-500

   c. 1-750

   d. More than 1000

2. Within the Symposium Express Call Center architecture, what is the function of the CLAN?

   a. To connect the Symposium Express Call Center server to the Symposium Express Call Center client PCs on the customer's LAN.

   b. To connect the Symposium Express Call Center server to the Meridian 1 switch.

   c. To connect the Symposium Express Call Center server to the Voice Services card in the Meridian 1 switch.

   d. All of the above

3. What level of system access is required to view the scripts in Symposium Express Call Center?

   a. Senior Supervisor

   b. Customer Administrator

   c. System Administrator

   d. Scripts are not viewable in Symposium Express Call Center

4. When routing an incoming call, the routing wizard checks CLID first to give priority to special customers.

   a. True

   b. False

5. For database backups, Symposium Express Call Center only supports backup to the local tape drive.

   a. True

   b. False

6. With CallPilot integrated with your Symposium Express Call Center, a single CallPilot server can provide both voice services to incoming calls and unified messaging to call center personnel.

   a. True

   b. False

7. Which operating system is required for the installation of the Symposium Express Call Center server?

   a. Windows 2000 Server

   b. Windows 2000 Advanced Server

   c. Windows 2000 Professional Server

   d. Windows NT 4.0 Server

8. Which of the following types of call treatment is supported with the Symposium Express Call Center Voice Services card?

   a. Transfer to DN

   b. Comfort Message

   c. Voice Menu

   d. Prompt/ Collect Digits

   e. All of the above

9. Internet Explorer 5.5 (Service pack 1) or higher is required for the Symposium Express Call Center client application and must be installed on any PC where the client will be run.

   a. True

   b. False

10. What is the maximum number of Agents that can be configured on Symposium Express Call Center?

    a. 150

    b. 300

    c. 500

    d. 1000

Summary

In this lesson you learned that the Symposium Express Call Center is set up in a Local Area Network with two subnets. These subnets are the Embedded LAN (ELAN) that connects the Symposium Express Call Center server with the Meridian 1 switch, and the Customer LAN (CLAN) that connects the Symposium Express Call Center client to the Symposium Express Call Center server and the customer's internal network. You also learned how a call is treated upon entering Symposium Express Call Center and became knowledgeable about the system capacities.

Configuring the Switch

Introduction

In order for the Symposium Express Call Center to function with your PBX switch, you must configure the switch to communicate with the Symposium Express Call Center server. In this lesson you will learn how to configure a Meridian 1 or Succession CSE 1000 switch to support the Symposium Express Call Center server. You will configure the Ethernet Application Module (AML) Link, CDNs and agent phonesets, IVR ACD-DNs, and voice ports.

Objective

At the conclusion of this lesson, given your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Call Center Management Guide,* and the *Meridian 1 System Installation and Maintenance Guide,* you will be able to complete the following tasks:

- Configure the switch for use with the Symposium Express Call Center
- Carry out basic ELAN maintenance

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide *Meridian 1 System Installation and Maintenance Guide*	"Getting Started"		

Terms

Application Module Link (AML)

Link used for communication between Meridian Mail and the switch.

Controlled Directory Number (CDN)

Allows incoming calls to be queued into the switch, and messages regarding these calls to be sent to Symposium Express Call Center.

Directory Number (DN)

The number that identifies a phoneset on a PBX or in the public network. The directory number can be a local PBX extension (local DN), a public network telephone number, or an automatic call distribution directory number (ACD-DN).

Interactive Voice Response (IVR)

An application that allows telephone callers to interact with a host computer using prerecorded messages and prompts.

IVR ACD-DN

A queue within the PBX with virtual agents representing a channel to provide call treatments to the callers. These ACD-DN queues must be acquired for proper usage.

Operation, Administration and Maintenance (OA&M)

Provides on-going functions for the system.

Private Branch Exchange (PBX)

A telephone switch, typically used by a business to service its internal telephone needs.

RAN

Recorded announcement

Route

A route is a group of trunks that is all of the same type. Each trunk carries either incoming or outgoing calls to the switch.

Supported Switches and Required Software

You can configure either the Meridian 1 or Succession Communication Server for Enterprise (CSE) 1000 switch to work with Symposium Express Call Center.

Note: Unless otherwise specified, references in this guide to the Meridian 1 switch are also applicable to the Meridian 1 Internet Enabled switch.

Minimum Switch Software Release

The table below indicates the software version required for each supported switch. Ensure that you have all the latest software packages installed on your switch.

Table 1: Minimum Switch Software Release

Switch	Minimum Software Release
Option 11C, Options 51C to 81C	Meridian 1 (X11) Release 24.24
Option 11C Mini	Release 2.00A (based on Meridian 1 [X11] Release 24.24)
Succession CSE 1000	CSE 1000 Release 1.1

Required Packages

The following feature packages must be provisioned:



Caution: *You must ensure that all X11 patches relevant to your software release are applied. Information about Meridian 1 X11 patches is available on the Nortel Networks MPL Web site. Contact your distributor or Nortel Networks support representative for further information.*

Notes



For ELAN Connectivity

The following packages are required for ELAN connectivity:

- 77 - CSL (Command Status Link)
- 153 - X23AP (Application Module Link)
- 164 - LAPW (Limited Access to Overlays)
- 242 - MULI (Multi User Login)
- 243 - Alarm Filtering
- 296 - MAT (Meridian Administration Tools)
- 324 - NGEN package

For Symposium Express Call Center Functionality

The following packages are required for Symposium Express Call Center functionality:

- 41 - ACDB (ACD Package B)
- 214 - EAR (Enhanced ACD Routing)
- 215 - ECT (Enhanced Call Treatment)
- 218 - IVR (Hold in Queue for IVR)
- 247 - Call ID
- 311 - NGCC package
- 324 - NGEN package

Optional Packages

The following packages are required for some Symposium Express Call Center Features to be operational:

- 98 - DNIS (Dialed Number Identification Service)
- 113 - IDC (Incoming DID Digit Conversion)
- 207 - NACD for networking
- 209 - MLM (Meridian Link Module) for MLink
- 254 - PHTN for roaming agents to have personal DN calls forwarded to them

Notes



IP Network Interface Configuration

There are two different IP addresses on the Meridian 1:

- **Primary IP Address:** Used by single-CPU Meridian 1 systems. One IOP contains one Ethernet interface, which must be configured.
- **Secondary Address:** Used on redundant-CPU Meridian 1 systems. Dual-CPU Meridian 1 systems, in normal operation, use the Primary address. When operating in split mode, such as during an upgrade of hardware or software, the dual-CPU Meridian 1 system uses the Secondary address.

Refer to the following table to ensure that you have the correct LAN package for your Meridian 1 switch.

Table 1: The LAN Packages Required for the Meridian 1 Switch Types

Switch Type	LAN Package	Contents	Quantity
Option 11C or CSE 1000	NTHF35AA	10BaseT Hub	1
		Transceiver	1
		10-Foot Ethernet Cable	1
		25-Foot Ethernet Cable	1
		LAN Cable	1
Option 51C	NTHF69AA	10BaseT Hub	1
		Ether Twist Transceiver	1
		10-Foot Ethernet Cable	1
		25-Foot Ethernet Cable	1
		LAN Cable	1
Option 61C or Option 81C	NTHF36AA	10BaseT Hub	1
		Transceiver	2
		10-Foot Ethernet Cable	2
		25-Foot Ethernet Cable	1
		LAN Cable	2



Tip: *A 10Base-T Hub is required for all installations. Nortel Networks does not support the use of "crossover cables."*

Symposium Express Call Center to Switch LAN Connection

The following figures depict the Ethernet LAN connection between the Symposium Express Call Center server PC and the different types of PBX switches.

Option 11C

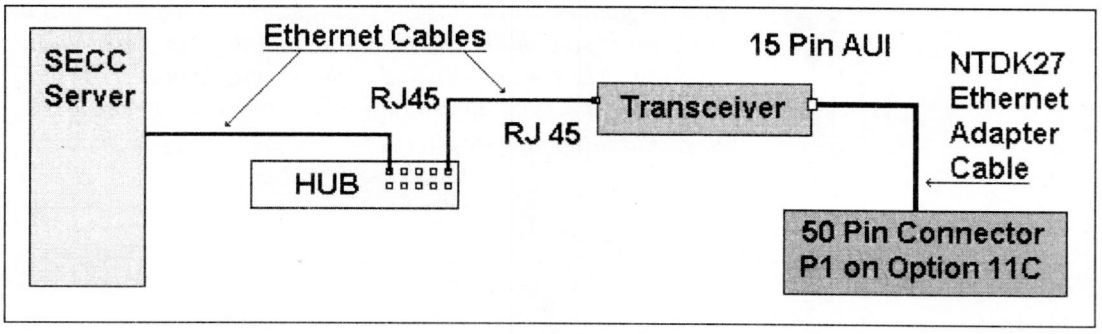
For an Option 11C, a 10 Mbps Ethernet port on the NTDK20 card provides the Ethernet interface. A 50-pin connector located in the main cabinet provides the external connection to the Ethernet port. An NTDK27 Ethernet Adapter Cable adapts this 50-pin connector to the standard 15-pin AUI interface for a transceiver.

In the Option 11C switch, the Ethernet cable connector (P1) is located to the left of the retaining bar in the main cabinet.

Tip: *Newer Option 11 switches have the transceiver built into the switch and provide an RJ-45 connector on the IO backplane.*

The following figures are provided to show the Ethernet connections for the Option 11C switch.

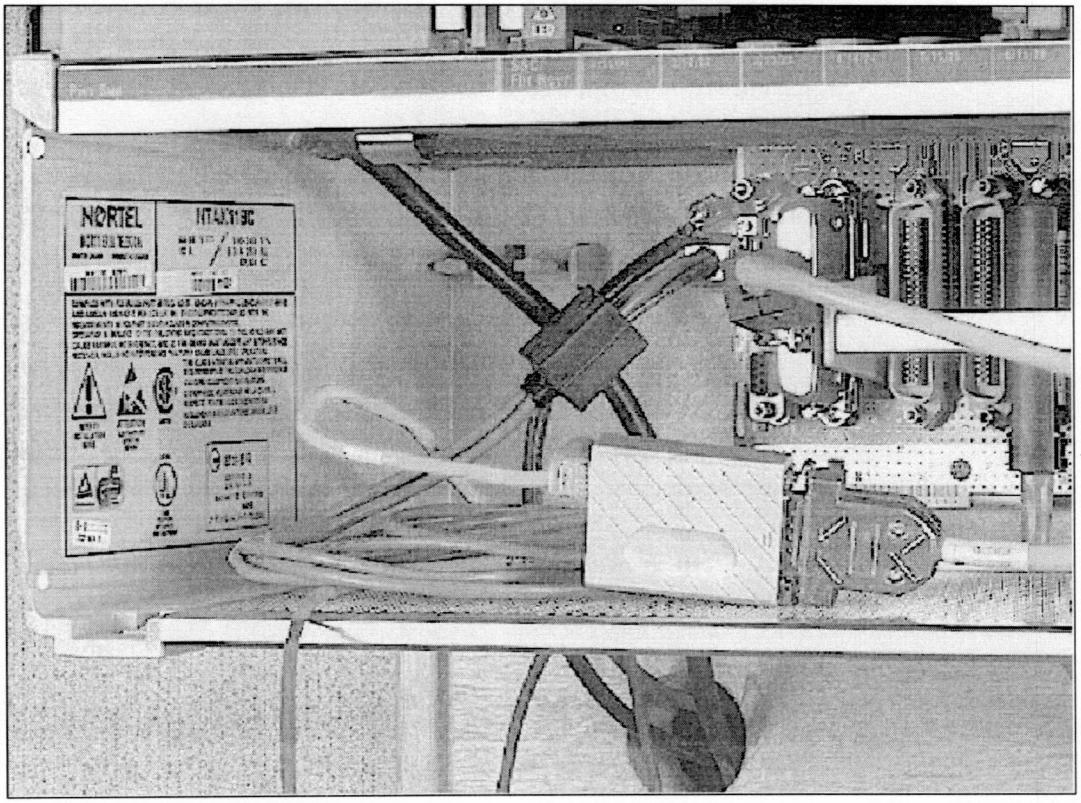
Figure 1: Option 11C Connectivity



Notes

depict = describe

Figure 2: The Ethernet Connection on an Option 11C Meridian 1 Switch



Tip: *A jumper block must be installed on connector J7 on the component side of the NTDK20 for the Ethernet connection to function. The card is shipped with the plug installed. If the Ethernet connection does not function properly, check to ensure that the jumper plug is installed.*

Notes

Figure 3: The Option 11C NTDK20 Card, J7 Jumper Block Location

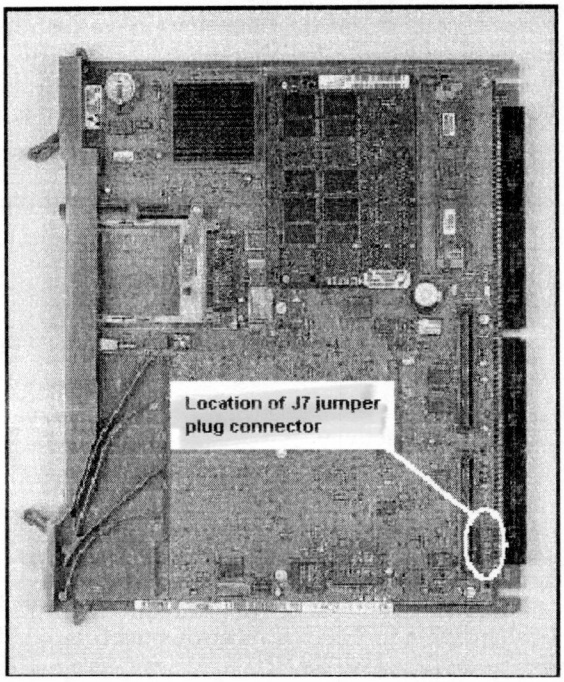
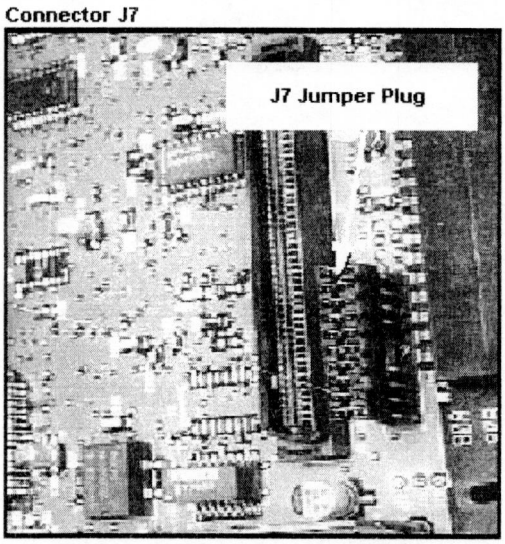


Figure 4: The Option 11 NTDK20 Card with J7 Jumper Plug



Notes



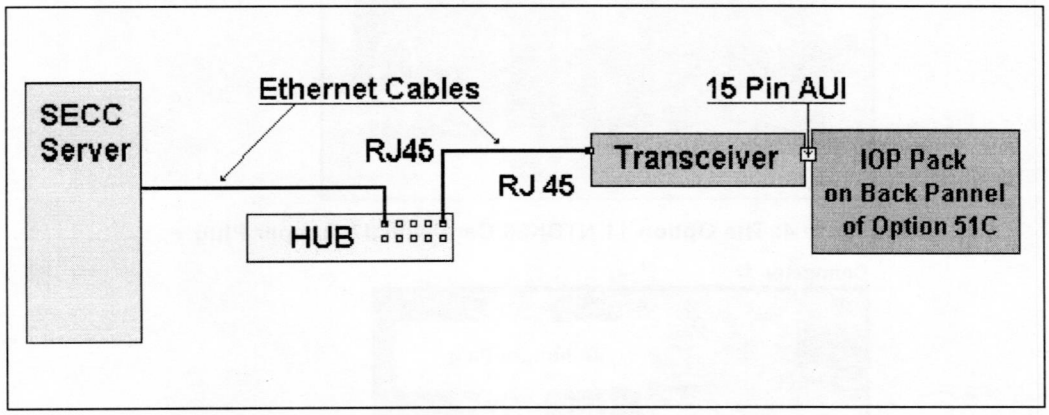
Option 51C, 61C, and 81C Switches

For legacy Meridian 1 Option 51C, 61C, and 81C switches, the Ethernet interface is provided by the IOP pack with AUI cable on the back panel or with the IODU/C with AUI cable on the back panel. An RJ45 to 15-pin AUI transceiver connects the Ethernet cable's RJ45 connector to the IOP pack.

For the Meridian 1 Option 51C, 61C, and 81C switches with the CP PII call processor card, the Ethernet connection is made with an RJ45 connection on the front faceplate of the processor card.

The following figures are provided to show the Ethernet connections for the Option 51C, 61C, and 81C Meridian 1 Switches.

Figure 5: Option 51C, 61C, and 81C Connectivity



Notes

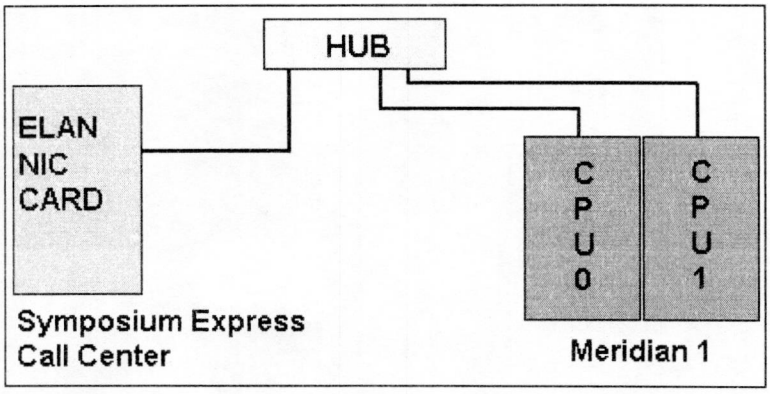


Redundant CPUs

If the switch is an Option 61C or 81C switch with redundant CPUs, you must connect both CPUs to the ELAN Hub. Ethernet interface is provided by the IOP pack with an AUI cable on the back panel as discussed in the previous paragraphs.

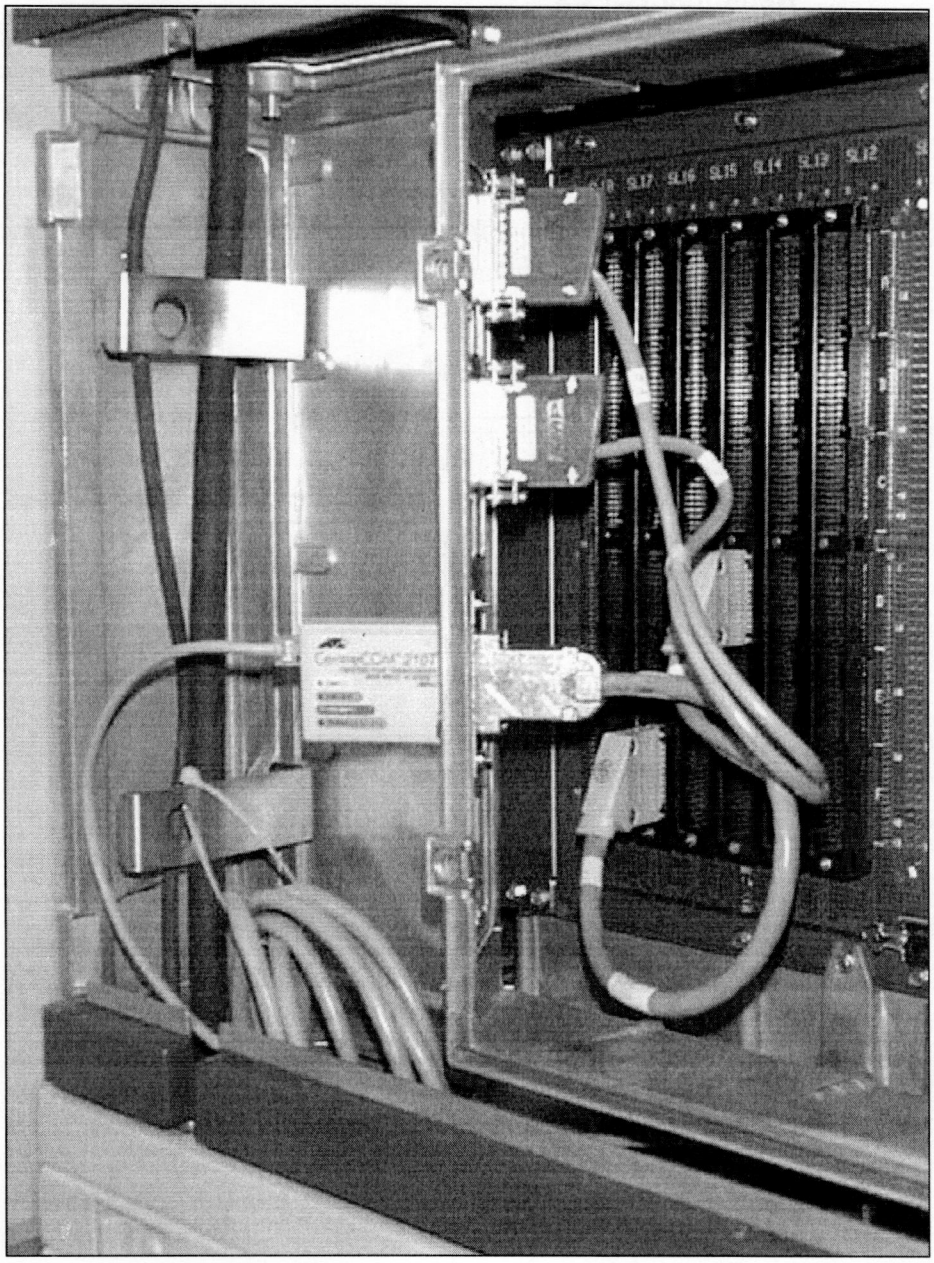
Tip: *Each IOP card contains one Ethernet interface that must be configured.*

Figure 6: Redundant CPU Meridian 1 connectivity



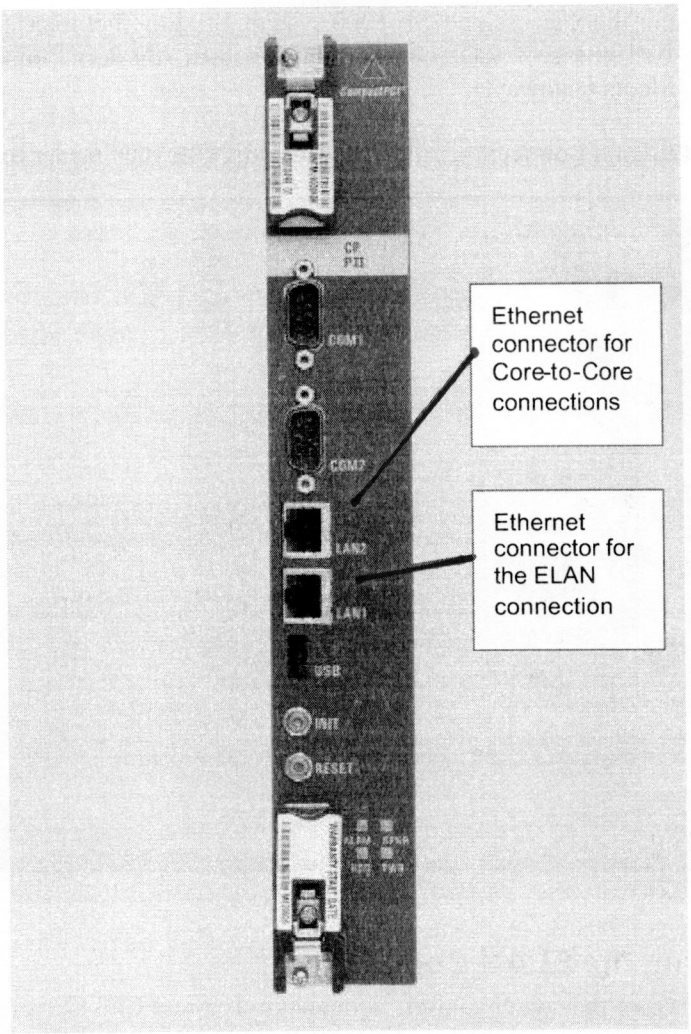
Notes

Figure 7: The Ethernet Connection on a Legacy Option 51C, 61C, or 81C Meridian 1 Switch



Notes

Figure 8: The Ethernet Connection on a CP PII Option 51C, 61C, or 81C Meridian 1 Switch

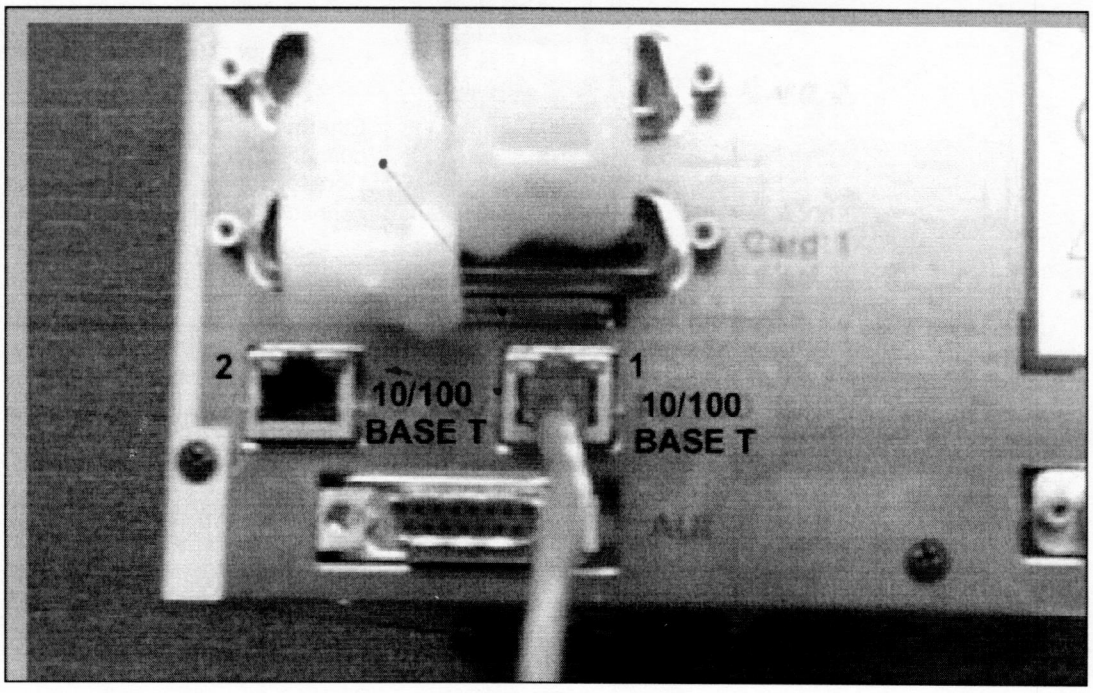


Notes

Succession CSE 1000

For the Succession CSE 1000 system, the Ethernet interface is provided by a 10/100Base-T RJ45 connection labeled ELAN Port 1 on the rear panel of the Media Gateway.

Figure 9: The Ethernet Connection on the Succession CSE 1000 Media Gateway



Testing the ELAN Connection

Once the switch and the Symposium Express Call Center server are connected and the ELAN is enabled, you can test the connections with the ping command from the server.

Notes





Practice

Switch Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Call Center Management Guide,* and the *Meridian 1 System Installation and Maintenance Guide.* Verify your answers with the Answers to Practice pages that follow.

Select Answer

1. Other than during a malfunction of a CPU, when would a dual-CPU Meridian 1 system use the secondary IP address?

- a. A dual CPU Meridian 1 system will never use the secondary IP address.
- b. A dual CPU Meridian 1 system will only use the secondary IP address during an upgrade of hardware or software.
- c. A dual CPU Meridian 1 system will only use the secondary IP address when operating in split mode, with each CPU acting independently.
- d. A dual CPU Meridian 1 system will use the secondary IP address when operating in split mode, with each CPU acting independently, or during an upgrade of hardware or software.

Select Answer

2. Where is the Ethernet cable connector located on the Meridian 1 Option 11C Switch?

- a. At the rear of the Symposium Express Call Center server
- b. To the left of the retaining bar in the main cabinet
- c. On the NTDK20 SSC card at J 7
- d. At the RJ45 connection labeled ELAN Port 1 on the rear panel of the Media Gateway

reset

Configuring the Switch for Symposium Express Call Center

Symposium Express Call Center requires special configuration for the following resources on the switch:

- Ethernet Application Module Link (AML)
- Voice Services card (optional keycoded feature)
- CDNs and agent phonesets
- IVR ACD-DNs
- Voice ports
- Tones

Perform all of the configuration tasks in this section on the administration terminal attached to your Meridian 1 switch. Complete the procedures below in the order listed.

Configure the Ethernet Application Module Link

To configure the Ethernet AML, you must perform the following tasks:

- Define the Ethernet LAN (ELAN).
- Define one Value Added Server (VAS) for each ELAN configured.

These tasks associate the link (ELAN) with a VAS ID to allow message transmission.



Tip: *At the ADAN Prompt, the numbers 0-15 can be used for the AML link; the numbers 16-31 are reserved for the ELAN link.*



Tip: *Disable the server and then disable the ELAN with the ELNK still up before programming a new ELAN.*

Notes



1. Define the ELAN:

Use the prompts and responses below to define the ELAN in overlay 17.

LD 17

Prompt	Response	Description
REQ	CHG	Change
TYPE	ADAN	
ADAN	NEW ELAN 16, CHG ELAN 16, OUT ELAN 16	ADD/Change/Remove I/O device type ELAN 16 (0-15 are reserved for AML link 16-31 is reserved for the ELAN link)
CTYP	ELAN	Card type
DES	SECC	A Port designation
LCTL	No	Modify link control system parameters
N1	128, (512)	Maximum octets per frame. 128 or 512 are available (Accept default)
ADAN	<Enter>	Press Enter until you reach the end of the Overlay (REQ prompt).
REQ	****	Exit from the Overlay

Verify the ELAN

Use LD 22 to verify the ELAN that you defined.

LD 22
=> PRT ADAN

ADAN ELAN 16
CTYP ELAN
DES SECC

Notes



Steps to change ELAN:
Down server
Disable ELAN in LD 48
Out ELAN XX in LD 17
CHG TYPE ADAN
ADAN NEW ELAN 16
CTYPE=ELAN
DES (NAME)
REQ CHG
TYPE VAS
VASID=16
ELAN=16

2. Define VSID:

Note: You must define one VAS (Value Added Server) for each ELAN configured.

Use the prompts and responses below to define the VSID in overlay 17.

LD 17

Prompt	Response	Description
REQ	CHG	Change
TYPE	VAS	Value added server
VAS	NEW	Add a value added server
VSID	16	VAS identifier
ELAN	16	Associate VAS ID 16 with ELAN 16
SECU	Yes, (No)	If you are enabling the Symposium Voice Services Support feature, set to YES. Otherwise, set to NO
CSQO	255 maximum	Number of call registers linked to output queue
CSQI	255 maximum	Number of call registers linked to input queue
	<Enter>	Press Enter until you reach the end of the Overlay (REQ prompt).
REQ	****	Exit from the Overlay



Tip: *The VSID must be between 16-31. It is preferable to have the VSID and the ELAN the same number.*

The link (ELAN) is now associated with a Value Added Server ID to allow message transmission.

Notes



Provision the ELNK IP Address

Overlay 117 allows the administrator to configure IP network interface addresses and perform all IP network related maintenance and diagnostic functions. Typing a question mark at the prompt gives a listing of available commands.

Note:

- For a single CPU Meridian 1 switch (for example, Option 11C), there is only one Ethernet interface and a primary IP address.
- For a redundant or dual-CPU Meridian 1 switch (for example, Option 81C), you must define a primary and secondary IP address.
- If the Meridian 1 switch is also connected to a CLAN, a gateway IP address must be defined.



Tip: *To change the switch IP address after Symposium Express Call Center is installed and running, you must perform the following steps:*

1. *Shut down the Symposium Express Call Center server*
2. *Change the switch IP address*
3. *Restart the Symposium Express Call Center server*
4. *Rerun the Symposium Express Call Center Setup Configuration Utility to update the switch IP address information*

Verify the Current Settings

Check the current IP address settings in Overlay 117 with the following commands:

- PRT HOST
- STAT HOST
- PRT MASK
- PRT ELNK

Notes



Print the Host Table

First, enter Overlay 117 and print the host to see the current configuration of the host table.



Tip: *All IP addresses given in this Student Guide are provided as an example only. The IP addresses that you use will be unique for each installation, both in the classroom and at a field site.*

```
LD 117
=> PRT HOST
```

ID	Hostname	IP Address
1	SECONDARY_ENET	137.135.128.254
2	LOCAL_PPP_IP	137.135.192.4
3	REMOTE_PPP_IP	100.1.1.1
4	PBX1	137.135.128.3

Check the Status of the Host

After viewing the contents of the host table, check the status of the host to determine which is the current active host.

```
=> STAT HOST
```

```
*** Active Internet Host Table ***
```

ID	Hostname	IP Address
---	localhost	127.0.0.1
1	SECONDARY_ENET	137.135.128.254
2	LOCAL_PPP_IP	137.135.192.4
3	REMOTE_PPP_IP	100.1.1.1
---	PBX1	137.135.127.3

Notes



Print the Subnet Mask

Use the following command to view the current subnet mask for the Ethernet link:

=> PRT MASK

SUBNET MASK: "255.255.255.0"

OK

Print the Ethernet Link

Use the following command to view the current Ethernet Link IP address:

=> PRT ELNK

ACTIVE ETHERNET: "PBX1" "137.135.127.3"

INACTIVE ETHERNET: "SECONDARY_ENET" "137.135.128.254"

OK

Exit the Overlay

Exit Overlay 117 with the following command:

****

Notes



Change the Switch IP Address

Step 1: Create a New Host

Create a host entry for the primary IP address in Overlay 117 with the following command:

LD 117
=> NEW HOST NAME xxx.xxx.xxx.xxx

Where NAME is the host name for the primary IP address, and xxx.xxx.xxx.xxx is the primary IP address. For example:

NEW HOST PBX1 137.135.125.10

Step 2: Assign New Host to Primary IP Address

Assign your new host to the primary IP address with the following command:

LD 117
=> CHG ELNK ACTIVE NAME

Where NAME is the host name for the primary IP address, for example:

CHG ELNK ACTIVE PBX1

Step 3: Set the Subnet Mask

Set up the Ethernet subnet mask by entering the following command:

=> CHG MASK xxx.xxx.xxx.xxx

Where xxx.xxx.xxx.xxx is the subnet mask, for example:

CHG MASK 255.255.255.0



Tip: *The Subnet Mask for the Ethernet Link on the switch must be the same as for the ELAN network interface card on the Symposium Express Call Center server.*

Optional Step: Set the Gateway

If using a gateway, set up the routing entry by entering the following command:

=> NEW ROUTE xxx.xxx.xxx.xxx yyy.yyy.yyy.yyy



Tip: *Routing information is required if an Internet Gateway or Router connects the switch network connection to the CLAN.*

Where xxx.xxx.xxx.xxx is the network IP address and yyy.yyy.yyy.yyy is the gateway IP address. You must put one space between the network IP address and the gateway IP address. For example:

NEW ROUTE 0.0.0.0 137.135.120.10

Step 4: Update the Database

Update the INET database by entering the following command:

=> UPDATE DBS

Exit Overlay 117 with the following command:

****

Step 5: Enable the ELNK

Before your changes will become active, you must disable and enable the ELNK in LD 137.

LD 137

. DIS ELNK

OK

. ENL ELNK

OK

Notes



Verify the Ethernet Interface

Your switch IP address, Subnet Mask, and Gateway are now configured. You can verify the status of the Ethernet interface in Overlay 137 and the ELAN in Overlay 48.

Check the ELNK Status

In Overlay 137, check the status of the ELNK by entering the following command:

```
LD 137
. STAT ELNK
ELNK ENABLED
```

Confirm that the system now displays ELNK ENABLED and then exit the Overlay.

```
. ****
```

Check the Status of the ELAN

In Overlay 48, check the status of the ELAN by entering the following command:

```
LD 48
. STAT ELAN
ELAN DISABLED
```

Enable the ELAN

If the system displays ELAN DISABLED, enable the ELAN by entering the following command:

```
. ENL ELAN
OK
```

Notes



Verify That the ELAN is Active

Verify that the ELAN is now active by entering the following command:

```
. STAT ELAN
ELAN ENABLED
```

Confirm that the system now displays ELAN ENABLED and then exit the Overlay

```
. ****
```

Ping the ELAN Connection to the Symposium Express Call Center Server

Use the PING command in LD 117 to verify connectivity between the switch and the Symposium Express Call Center server:

```
LD 117
=>PING xxx.xxx.xxx.xxx
```

Where xxx.xxx.xxx.xxx is the IP address of a station on the ELAN.

Notes





Practice

Switch Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Call Center Management Guide,* and the *Meridian 1 System Installation and Maintenance Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

3. The "add new host to the host table" function is performed in LD 17.

   a. True

   b. False

Select Answer

4. Nortel Networks recommends that the subnet set when provisioning the ELNK on the switch be the same that is used for the ELAN Network Interface Card on the Symposium Express Call Center server.

   a. True

   b. False

reset

Select Answer

5. Where can you enter the PING command to test the ELAN connection from the Meridian 1 switch to the Symposium Express Call Center server PC?

a. From load 17 on the Meridian 1 switch

b. From the command prompt on any Symposium Express Call Center stand-alone client PC

c. From the command prompt on the Symposium Express Call Center server PC or from load 117 on the Meridian 1 switch

d. From the command prompt on any Symposium Express Call Center stand-alone client PC or from load 17 on the Meridian 1 switch

reset

Configure CDNs and Agent Sets

CDNs and agent sets require no special configuration for Symposium Express Call Center. In LD 23, the CDN is defined with CNTL= NO, RPRT=NO, and AACQ=NO. The VSID definition on agent sets or CDN is not needed, and must not be entered. When Symposium Express Call Center controls sets and CDNs, the parameter ASID appears next to the TNB or CDN block. The CDN is automatically changed to CNTL = YES. AACQ (for CDNs) and AACS (for sets) are automatically changed to YES.



Tip: *In order for an agent to log on to his or her phoneset, the agent ID must be added to Symposium Express Call Center.*

The following display shows the prompts and responses for adding a CDN

LD 23

Prompt	Response	Description
REQ	NEW	
TYPE	CDN	ACD or control DN data blocks
CUST	0-99	Customer number
CDN	XXXX	
RPRT	NO	
CNTL	NO	
AACQ	NO	

Notes



The next display shows a CDN that has been acquired by the Symposium Express Call Center.

LD 23

Prompt	Response	Description
REQ	PRT	Print
TYPE	CDN	ACD or control DN data blocks
CUST	0-99	Customer number
CDN	XXXX	
AACQ	Yes, (No)	Application Service Identification where the acquired message originated
ASID	16-31 or (00)	Application Service Identification where the acquired message originated
SFNB	1 2 ...	Message set feature notification bitmap for messages such as SFN (log on), SFN (log off) ...
USFB	1 2 ...	Message filter bitmap for USM messages such as Onhook, Offhook, Ringing, Active, Disconnect, Unringing, Hold, Restore, Ready, Not Ready, Walkaway, Walkaway Return, Reserved, Unreserved
CALB	1 2 ...	Message filter bitmap for Call Filter messages such as PCI, DN Update
RPRT	NO	
CNTL	YES	

CDNs must be built with CNTL and RPRT set to NO so that Symposium can acquire the CDNs and so that the PBX will not report to both Meridian Max and Symposium.

Tip: *To make changes to Agent or Supervisor phonesets, you must first De-acquire and Delete the existing phoneset in Symposium Express Call Center. Next, make the changes to the phoneset on the switch. Finally you must add and then Reacquire the phoneset in Symposium Express Call Center.*

SFNB = Set Feature Notification Bitmap
USFB = USM Filter Bitmap
CALB = Call Filter Bitmap

When Symposium Express Call Center acquires the agent set, the call center takes control of that resource, and the TN printout will look similar to this example.

Figure 10. TN Printout Option 11

```
TN  4 0
DATE
PAGE
DES
DES Symposium Express
TN  004 0 00 00
TYPE 2616
CDEN 8D
CUST 0
AOM  0
FDN
TGAR 1
LDN  NO
NCOS 0
SGRP 0
RNPG 0
SCI  0
SSU
XLST 0
SFLT NO
CAC  3
CLS       CTD FBD WTA LPR MTD FND HTD ADD HFD MWD AAD
          IMD XHD IRD NID OLD VCE DRG1 POD DSX VMD CMSD
          CCSD SWD LND CNDD CFTD SFD MRD DDV CNID NROD
          ICDD CDMD LLCN MCTD CLBD AUTU GPUD DPUD
          DNDD CFXD ARHD FITD CNTD CLTD ASCD
          CPFA CPTA HSPD ABDD DELD CFHD FICD NAID DNAA
          UDI RCC HBTD AHD IPND DDGA NAMA MIND PRSD NRWD NRCD
          EXR0  USMD USRD ULAD CCBD RTDD PGND OCBD FLXD
CPND_LANG ENG
HUNT
PLEV 02
SPID NONE
AST
IAPG 0
AACS YES
ACQ  AS: TN
ASID 17
SFNB  1  2 ...19
SFRB  1  2  15
USFB  1  2   ...15
CALB  0  1  2 ... 11
FCTB
ITNA NO
DGRP
PRI  01
MLWU_LANG 0
DNDR 0
KEY  00 ACD 6700 0  6710
       AGN
     01 NRD
     02 MSB
```

IVR ACD-DN

An IVR ACD-DN is a DN that applies a specific IVR application to an incoming call. Symposium Express Call Center server must acquire configured IVR ACD-DNs for use.

Meridian 1 ACD software is distributes calls over the voice ports. Voice ports are configured as ACD agents and belong to an ACD-DN, which in turn is used by the Symposium Express Call Center server to direct calls to a specific set of ports.

When to Configure IVR ACD-DNs

Configure IVR ACD-DNs if you use CallPilot, Meridian Mail, the Voice Services card or another IVR system to play the messages to the callers. These messages are stored on the CallPilot, Meridian Mail, the Voice Services card or another IVR system, and can be announcements or voice menus. If your system only uses a MIRAN card to provide messages, you do not need to configure IVR ACD-DNs on your switch.

One IVR ACD-DN is required for the Main Queue that will have CallPilot or Meridian Mail virtual agents defined on it. Calls are assigned to that queue until a voice port is idle and available to connect the call to the CallPilot or Meridian Mail system. The treatment DN (TRDN), with the message to be played, is passed on the CSL link. If Symposium Express Call Center does not send this information, the TRDN value defined in the Main Mail Queue is used. If no TRDN is defined, the queue number is used. If the queue number is defined in the SDN or VSDN table as voice messaging, the call is connected to a mailbox.



Tip: *If your system only uses a MIRAN card to provide messages, you do not need to do this configuration.*

Notes



Create a CallPilot ACD-DN in LD 23

Use the prompts and responses below to configure a CallPilot ACD-DN in overlay 23:

LD 23

Prompt	Response	Description
REQ	NEW	Create new queue
TYPE	ACD	ACD data blocks
CUST	0-99	Customer number
ACDN	XXXX	The DN of the ACD queue. This is the number that you enter in the VSDN table.
MWC	NO	Indicates that this is not a message center.
MAXP	XX	Indicates the maximum number of ACD agents for this queue.
IVR	YES	Indicates the queue can be used with the Give IVR command defined in scripts.
TRDN	XXXX	Default treatment CN if not specified in the Call Routing Wizard.
ALOG	YES	ACD agents are automatically logged on.
REQ	END	Exit from overlay.

Notes



Create a Meridian Mail ACD-DN in LD 23

Use the prompts and responses below to configure a Meridian Mail ACD-DN in overlay 23:

LD 23

Prompt	Response	Description
REQ	NEW	Create new queue
TYPE	ACD	ACD data blocks
CUST	0-99	Customer number
ACDN	XXXX	The DN of the ACD queue. This is the number that you enter in the VSDN table.
MWC	YES	Indicates that this is a message center and that the queue has agents.
CMS	YES	Command and Status Link Application Protocol used.
IMA	YES	Enables IMA Attendant
IVMS	YES	Integrated voice messaging. Creates a message center from which messages can be retrieved.
VSID	XX	Do not enter any VAS ID from LD 17.
MAXP	XX	Indicates the maximum number of ACD agents for this queue.
ALOG	YES	ACD agents are automatically logged on when Meridian Mail is powered on.
NCFW	0	The DN to which calls are forwarded. Set to 0 for agent queues.
IVR	YES	Indicates the queue can be used with the Give IVR command defined in scripts.
TRDN	XXXX	Default treatment CN if not specified in the Call Routing Wizard.
....	....	

Voice Ports

Voice ports carry speech to CallPilot, Meridian Mail, the Voice Services card or a third-party IVR system. You must configure voice ports when CallPilot, Meridian Mail, Voice Services, or third-party IVR system ports are used to play announcements or voice menus. Enter the voice ports as virtual agent TNs. The class of service must be IMA and VMA to ensure they are virtual agents.



Tip: *CallPilot or Meridian Mail Voice Ports must be dedicated to Symposium Express Call Center and cannot be shared.*

Notes



Create CallPilot Voice Ports

Use the prompts and responses below to configure voice ports for CallPilot in overlay 11:

LD 11

Prompt	Response	Description
REQ	NEW, CHG	Add or change a voice port.
TYPE	2008	
TN	l s c u	Enter the TN of the agent
AST	00 01	Associated set assignment on key 0 and key 1 (required for MLSM messages)
CLS	MMS	Multimedia agent
	VCE	Voice terminal
	WTA	Warning time allowed. (When changing from CLS DAT to CLS VCE, CLS WTA should be added to avoid conflict with CLS CPTA. CLS CPTA is the default for VCE TNs.)
	FLXA (units 16-31)	Flexible voice/data allowed.
KEY	0 ACD xxxx zzz nnnn	Define 0 as an ACD key. xxxx is the ACD DN of agents to voice mail. zzz is the CLID entry number. nnnn is the position ID. In CallPilot, the position ID must match the CallPilot Key 0 value.
KEY	1 SCN xxxx	Define key 1 as a single-call non-ringing DN. xxxx is the SCN DN of the SCN. The DN must match the Key 1 value on the CallPilot Meridian 1 Switch Information screen.
KEY	2 MSB	Define key 2 as a Make Set Busy key.
KEY	3 NRD	Define key 3 as a Not Ready key.
KEY	4 TRN	Define key 4 as a Transfer key.
KEY	5 AO3	Define key 5 as a Conference key.
REQ	END	Exit from overlay.

Notes



Create Meridian Mail Voice Ports

Use the prompts and responses below to configure voice ports for Meridian Mail in overlay 11:

LD 11

Prompt	Response	Description
REQ	NEW, CHG	Add or change a voice port.
TYPE	2008 or SL1	Use 2008 for Meridian 1 Option 11, and SL1 for all other switch types.
TN	l s c u	Enter the TN of the agent
AST	00 01	Associated set assignment on key 0 and key 1 (required for MLSM messages)
CLS	IMA	Integrated messaging service attendant allowed.
	VMA	Server voice messaging allowed.
KEY	0 ACD xxxx zzz nnnn	Define 0 as an ACD agent key. xxxx is the ACD DN of voice agents in voice mail. zzz is the CLID entry number. nnnn is the position ID.
KEY	1 SCN xxxx	Define key 1 as a single-call non-ringing DN. xxx is the SCN DN of the SCN. The DN must match the DN on the Channel Allocation Table.
KEY	2 MSB	Define key 2 as a Make Set Busy key.
KEY	3 NRD	Define key 3 as a Not Ready key.
KEY	6 TRN	Define key 6 as a Transfer key.
KEY	7 AO3	Define key 7 as a Conference key.
KEY	9 RLS	(For SL1 sets) define key 9 as a Release key.
REQ	END	Exit from overlay.

Note: For Meridian Mail voice ports:

1. Ensure that the key layout matches the configuration of keys in Meridian Mail. This matching enables Meridian Mail to answer, disconnect, originate, transfer, and conference calls.
2. If your Meridian Mail passwords are configured to expire, you must change the passwords regularly, or voice processing will stop.

Configuring Tones

Tones provide call status to phoneset users. Tones are provided in on and off phases. One or more cycles of on/off cycles make up a tone's cadence. Use overlay 56 to customize the tones provided for international markets.

Use the prompts and responses below to configure tones in overlay 56:

LD 56

Prompt	Response	Description
REQ	NEW, CHG	Action Request
TYPE	FTC	Flexible Tones and cadences
TABL	1-255	Cadence number in the Master Cadence table
RING	xxxx	Define specific cadences
...	...	
HCCT	YES	Change hardware controlled cadence tone definition
...	...	
ILIN	<cr>	Symposium Express Call Center ending agent logon tone. Can be configured to change tone and cadence; otherwise, accept defaults. Go to next prompt to configure or accept default values.
XTON	0-(56)-255	NT8D17 TDS tone code
XCAD	0-(2)-255	NT8D17 cadence code for FCAD
ILOU	<cr>	Symposium Express Call Center pending agent logoff tone. Can be configured to change tone and cadence; otherwise, accept defaults. Go to next prompt to configure or accept default values.

Notes



Initializing the Switch

Your call center cannot process incoming calls if the switch is not operational. If you need to initialize the switch for any reason, always shut down the call center first.

Follow the steps below to initialize your switch:

- Shut down the Symposium Express Call Center co-resident client session and server application
- Perform the upgrade on the switch or reinitialize the switch
- Restart the switch
- Restart the Symposium Express Call Center server application and co-resident client session

Changing CDNs

While administering your Symposium Express Call Center, you may need to make changes to the CDNs that you have programmed on the switch. Specific steps must be taken to avoid service interruptions in your call center.

Follow the steps below in the given sequence to make changes on CDNs:

1. De-acquire the CDNs from the Symposium Express Call Center
2. Make the changes (delete, move, or add) to the CDN as required on the switch
3. Reacquire the CDN on the Symposium Express Call Center



Tip: *You can reacquire and de-acquire CDNs on the Symposium Express Call Center either from Advanced Functions or with the Import Wizard.*

Notes





Practice

Switch Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Call Center Management Guide,* and the *Meridian 1 System Installation and Maintenance Guide.* Verify your answers with the Answers to Practice pages that follow.

Select Answer

6. Identify the settings for a CDN after it has been acquired by the Symposium Express Call Center:

   a. CNTL = NO, AACQ = NO

   b. CNTL = NO, AACQ = YES

   c. CNTL = YES, AACQ = YES

   d. CNTL = NO, RPRT = NO, and AACQ = NO

Select Answer

7. For Meridian Mail voice ports, you must ensure the key layout matches the configuration of keys in Meridian Mail to enable Meridian Mail to answer, disconnect, originate, transfer, and conference calls.

   a. True

   b. False

reset



Answers to Practice

Switch Configuration Questions

Check your answers to the practice.

1. Other than during a malfunction of a CPU, when would a dual-CPU Meridian 1 system use the secondary IP address?

   a. A dual CPU Meridian 1 system will never use the secondary IP address.

   b. A dual CPU Meridian 1 system will only use the secondary IP address during an upgrade of hardware or software.

   c. A dual CPU Meridian 1 system will only use the secondary IP address when operating in split mode, with each CPU acting independently.

   d. A dual CPU Meridian 1 system will use the secondary IP address when operating in split mode, with each CPU acting independently, or during an upgrade of hardware or software.

2. Where is the Ethernet cable connector located on the Meridian 1 Option 11C Switch?

   a. At the rear of the Symposium Express Call Center server

   b. To the left of the retaining bar in the main cabinet

   c. On the NTDK20 SSC card at J 7

   d. At the RJ45 connection labeled ELAN Port 1 on the rear panel of the Media Gateway

3. The "add new host to the host table" function is performed in LD 17.

   a. True

   b. False

4. Nortel Networks recommends that the subnet set when provisioning the ELNK on the switch be the same that is used for the ELAN Network Interface Card on the Symposium Express Call Center server.

   a. True

   b. False

5. Where can you enter the PING command to test the ELAN connection from the Meridian 1 switch to the Symposium Express Call Center server PC?

   a. From load 17 on the Meridian 1 switch

   b. From the command prompt on any Symposium Express Call Center stand-alone client PC

   c. From the command prompt on the Symposium Express Call Center server PC or from load 117 on the Meridian 1 switch

   d. From the command prompt on any Symposium Express Call Center stand-alone client PC or from load 17 on the Meridian 1 switch

6. Identify the settings for a CDN after it has been acquired by the Symposium Express Call Center:

   a. CNTL = NO, AACQ = NO

   b. CNTL = NO, AACQ = YES

   c. CNTL = YES, AACQ = YES

   d. CNTL = NO, RPRT = NO, and AACQ = NO

7. For Meridian Mail voice ports, you must ensure the key layout matches the configuration of keys in Meridian Mail to enable Meridian Mail to answer, disconnect, originate, transfer, and conference calls.

   a. True

   b. False



Skill Check

Switch Configuration

Use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Call Center Management Guide,* and the *Meridian 1 System Installation and Maintenance Guide* as reference material to assist in performing the tasks below.

If the equipment is not available, write out the procedures that you must follow to complete the tasks.

Complete the steps below to configure and test the ELAN connection between the switch and the Symposium Express Call Center server.

1. In LD 117, add a new host to the host table, assign the IP address to the Ethernet port on the CPU, and set the Subnet Mask with the following commands:
   a. NEW HOST <host name><IP address>
   b. CHG ELNK ACTIVE <host name>
   c. CHG MASK <subnet mask>
2. In LD 137, activate the Ethernet interface with the following commands:
   a. DIS ELNK
   b. ENL ELNK
3. In LD 117, test the Ethernet connection with the server PC with the following command:
   a. PING <IP address>
4. In LD 17, define the ELAN with the following commands:
   a. CHG
   b. ADAN
   c. NEW ELAN 16

6. In LD 17, define the VAS ID with the following commands:

   a. CHG

   b. VAS

   c. NEW

   d. VAS 16

   e. ELAN 16

7. In LD 48, perform ELAN maintenance by enabling, disabling, and checking the status of the ELAN with the following commands:

   a. DIS ELAN

   b. ENL ELAN

   c. STAT ELAN

   d. STAT ELAN 16

Complete the steps below to configure the CDNs, Agent Sets, IVR ACD-DNs, and voice ports required for your Symposium Express Call Center.

1. Configure the CDN that will be used by the Symposium Express Call Center to receive calls in LD 23.

2. Configure the Agent phonesets in LD 11.

3. Configure the IVR ACD-DNs that will be used by Meridian Mail, CallPilot, the VS card, or a third-party IVR system to provide voice services to the Symposium Express Call Center in LD 23.

4. Configure the CallPilot, Meridian Mail, VS card, or third-party IVR system voice ports that will be used to play announcements or voice menus in LD 11.

5. Initialize the switch



Skill Check Feedback

Switch Configuration

Step	Configure the Ethernet Application Module Link, Provision the ELNK IP Address, and Perform ELAN Maintenance	V
1	In LD 117, add a new host to the host table, assign the IP address to the Ethernet port on the CPU, and set the Subnet Mask with the following commands: NEW HOST <host name><IP address> CHG ELNK ACTIVE <host name> CHG MASK <subnet mask>	
2	In LD 137, activate the Ethernet interface with the following commands: DIS ELNK ENL ELNK	
3	In LD 117, test the Ethernet connection with the server PC with the following command: PING <IP address>	
4	In LD 17, define the ELAN with the following commands: CHG ADAN NEW ELAN 16	
5	In LD 17, define the VAS ID with the following commands: CHG VAS NEW 16	
6	In LD 48, perform ELAN maintenance by enabling, disabling, and checking the status of the ELAN with the following commands: DIS ELAN ENL ELAN STAT ELAN STAT ELAN 16	

Step	Configure CDNs, Agent Sets, IVR ACD-DNs, and Voice Ports	V
1	In LD 23, add a CDN with the following commands: REQ ADD TYPE CDN CUST 0-99 CDN XXXX RPRT NO CNTL NO AACQ NO	
2	In LD 11, configure Agent phonesets for all Agents assigned to your Symposium Express Call Center.	
3	In LD 23, create a CallPilot ACD-DN with the following commands: REQ NEW TYPE ACD CUST 0-99 ACDN XXXX MWC NO MAXP XX IVR YES TRDN XXXX ALOG YES REQ END	

Step	Configure CDNs, Agent Sets, IVR ACD-DNs, and Voice Ports (continued)	V
3	Or, in LD 23, create a Meridian Mail ACD-DN with the following commands: REQ NEW TYPE ACD CUST 0-99 ACDN XXXX MWC YES CMS YES IMA YES IVMS YES VSID XX MAXP XX ALOG YES NCFW 0 IVR YES TRDN XXXX	
4	In LD 11, configure voice ports for CallPilot with the following commands: REQ NEW, CHG TYPE 2008 TN l s c u AST 00 01 CLS MMS VCE WTA FLXA (units 16-31) KEY 0 ACD xxxx zzz nnnn KEY 1 SCN xxxx KEY 2 MSB KEY 3 NRD KEY 4 TRN KEY 5 AO3 REQ END	

Step	Configure CDNs, Agent Sets, IVR ACD-DNs, and Voice Ports (continued)	V
4	Or, in LD 11 configure voice ports for Meridian Mail with the following commands: REQ NEW, CHG TYPE 2008 or SL1 TN l s c u AST 00 01 CLS IMA VMA KEY 0 ACD xxxx zzz nnnn KEY 1 SCN xxxx KEY 2 MSB KEY 3 NRD KEY 6 TRN KEY 7 AO3 KEY 9 RLS REQ END	
5	Follow the steps below to initialize your switch: 1. Shut down the Symposium Express Call Center co-resident client session and server application 2. Perform the upgrade on the switch or reinitialize the switch 3. Restart the switch 4. Restart the Symposium Express Call Center server application and co-resident client session	

Summary

In this lesson you learned how to configure the switch to connect to and work with a Symposium Express Call Center, carry out basic ELAN maintenance, and set up voice ports for your IVR system. These tasks must be completed before you can install the Symposium Express Call Center and begin call center operations.

Voice Services Card Installation

Introduction

Symposium Express Call Center supports the integration of a Voice Services (VS) card installed in the PBX switch. The VS card provides front-end voice processing capability to the call center. Using the VS card, you can play recorded announcements, provide callers with voice menu options, and collect data entered by callers in the form of digits entered through the phoneset keys. This customer-entered data determines the appropriate prerecorded call treatment for the call. The VS card provides the ability to inform callers on their position in queue or the amount of time that they can expect to wait before an agent answers their call.

This lesson introduces the VS card hardware and teaches you how to install the card in the switch. After you have installed your VS card, you will learn how to configure the card for operation with the Symposium Express Call Center.

Objective

At the conclusion of this lesson, given your lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Call Center Management Guide, Symposium Express Call Center Voice Services Card Installation Guide*, and the *Meridian 1 System Installation and Maintenance Guide*, you will be able to complete the following tasks:

- Install the VS card hardware in the switch
- Assign the IP address and Subnet mask to the VS card
- Describe the process for upgrading the VS card software
- Configure switch assets for use with the VS card

Resources

Refer to the following resources, as needed, to complete the lesson.

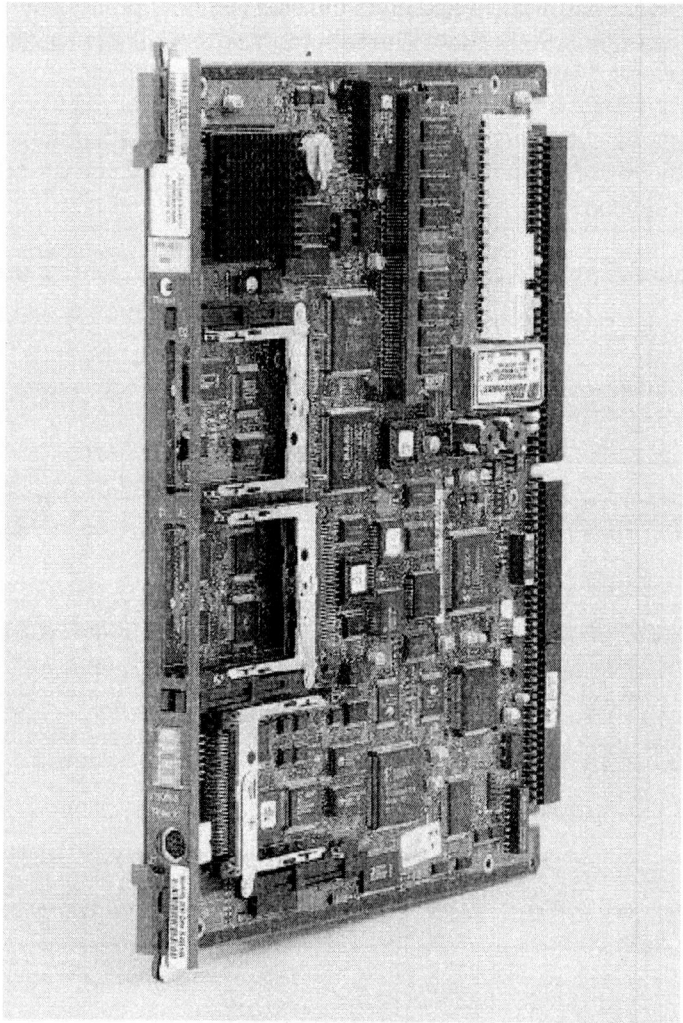
Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide *Meridian 1 System Installation and Maintenance Guide*	"Getting Started"		

Notes



The Voice Services Card

Figure 1: The Symposium Express Call Center Voice Services Card



Notes

Hardware Overview

The VS card comes from the factory with the call recording application software preinstalled and eight channels of DSP processing for eight voice ports on-board. For the Symposium Express Call Center, the VS card supports two additional DSP expansion cards with eight channels of DSP per card, for a maximum of 24 channels or voice ports. The VS card also supports two ATA Hard Drive Expansion cards with a maximum of 64 Mbytes per card. The total voice port capacity for the card is controlled by the keycode.

Figure 2: An ATA Hard Drive PCMCIA Card and a DSP Expansion Card



Tip: *ATA HD Cards are used for call treatment storage.*

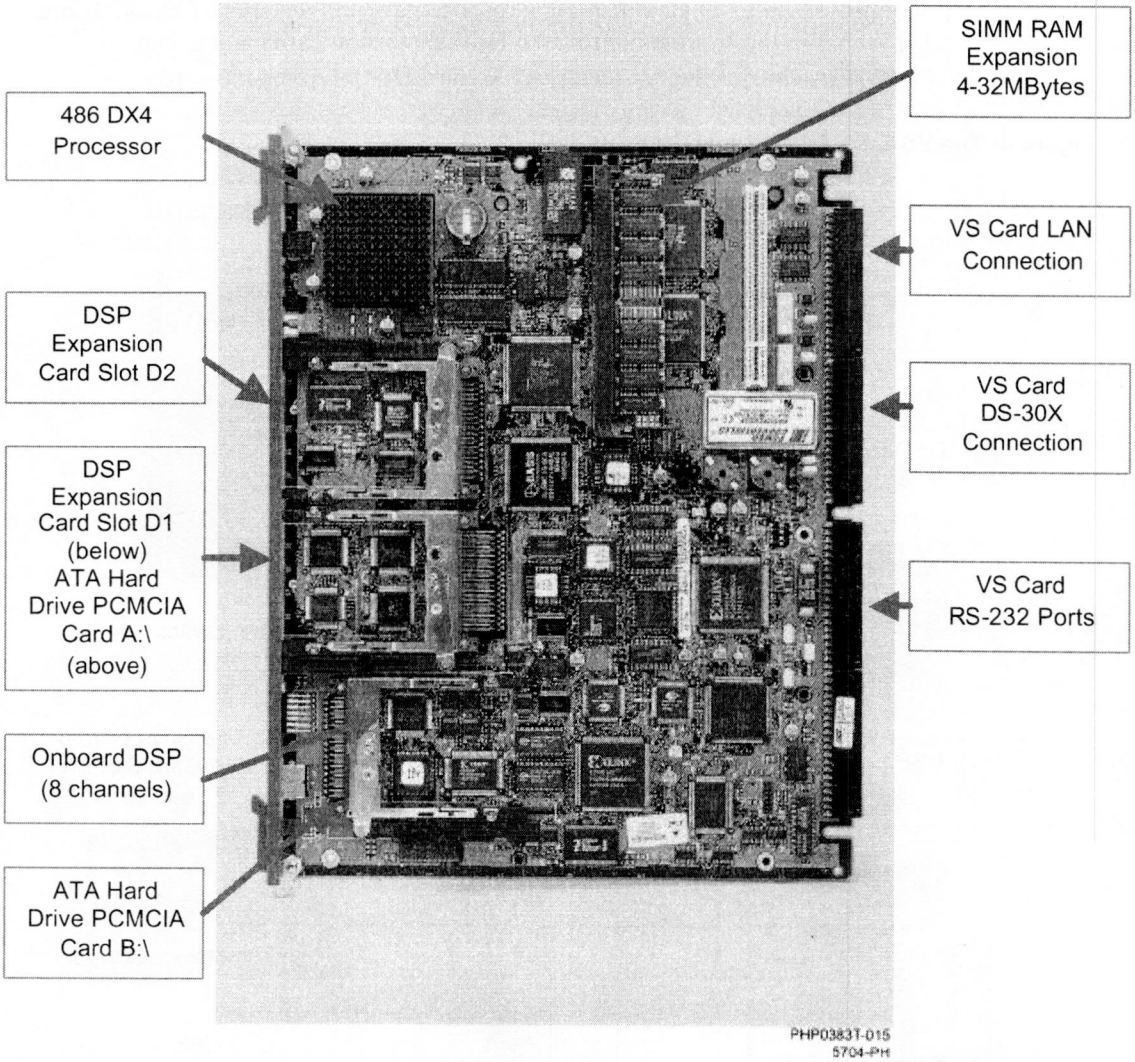
Tip: *The DSP cards are the same size as a Type II PCMCIA card but will not function in a PCMCIA card slot.*

The VS card has an Intel 486 DX4 processor and on-board RAM SIMMs for memory expansion from 4 to 32 Mbytes. The ATA Hard Drive Expansion card slot for Drive B:/ is a standard Type III PCMCIA card slot.

Notes

Voice Port Capacity → Keycodes.

Figure 3: The VS Card Base Pack

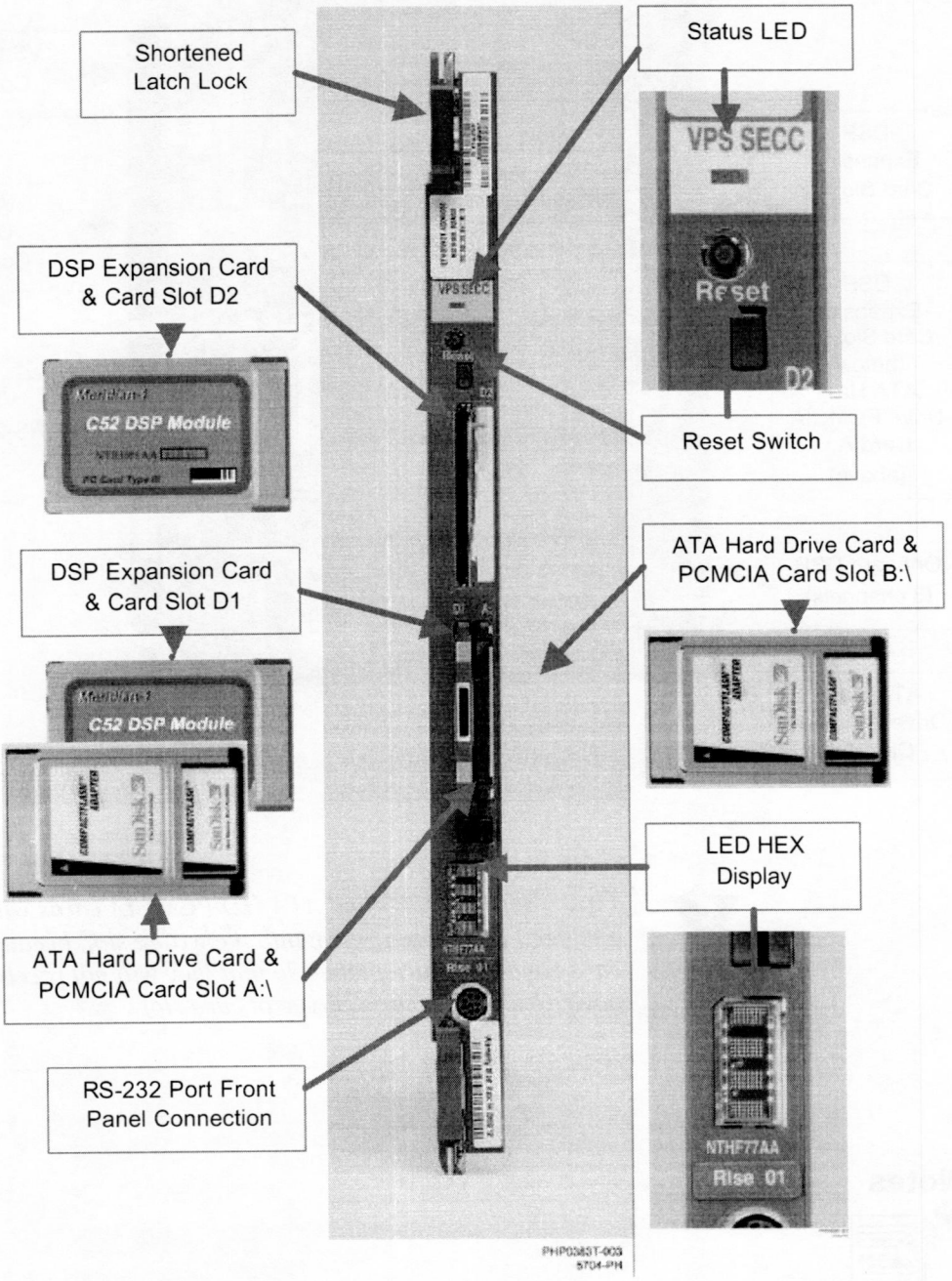


Tip: *The DSP cards and ATA HD PCMCIA cards will not be damaged if you insert them into the wrong slot, because the card connectors are pinned so that they will not receive power from the incorrect type of card slot*

Notes

Front panel controls, connectors, and indicators include an RS-232 Port connector, an LED Hex display, a reset switch, and a status LED. Slots are provided in the front panel for two DSP expansion cards and a Type II PCMCIA slot for the A:/ Drive ATA Hard Drive Expansion card.

Figure 4: The VS Card Front Panel Controls





Tip: *The following information is provided as a key to the card slots located on the VS card.*

Slot A will only accept Type I or Type II PCMCIA cards. DSP cards are non-functional in this slot.

Slot B will accept Type I, Type II, or Type III PCMCIA cards. DSP cards are non-functional in this slot.

Slots D1 and D2 will only accept DSP cards. ATA cards are non-functional in these slots.



Tip: *A 48 Mbyte DSP PCMCIA card can store up to five hours of recorded prompts.*

The status LED displays the self-test progress during boot-up, as follows:

T:xx

Note: "xx" indicates the test number that is currently being executed on the card.

After the card has booted, the status LED cycles through the number of enabled Aries phonesets, DSP channels, keycode, and channel capacity.

A:24 Indicates that 24 Aries sets are enabled.

D:16 Indicates that 16 DSP channels are enabled.

K:08 Indicates that eight channels are authorized by the keycode.

C:08 Indicates that the total channel capacity is eight. (Note that the channel capacity is the lowest value of A, D, and K.)

When the VS card is put into maintenance mode, the status LED changes to:

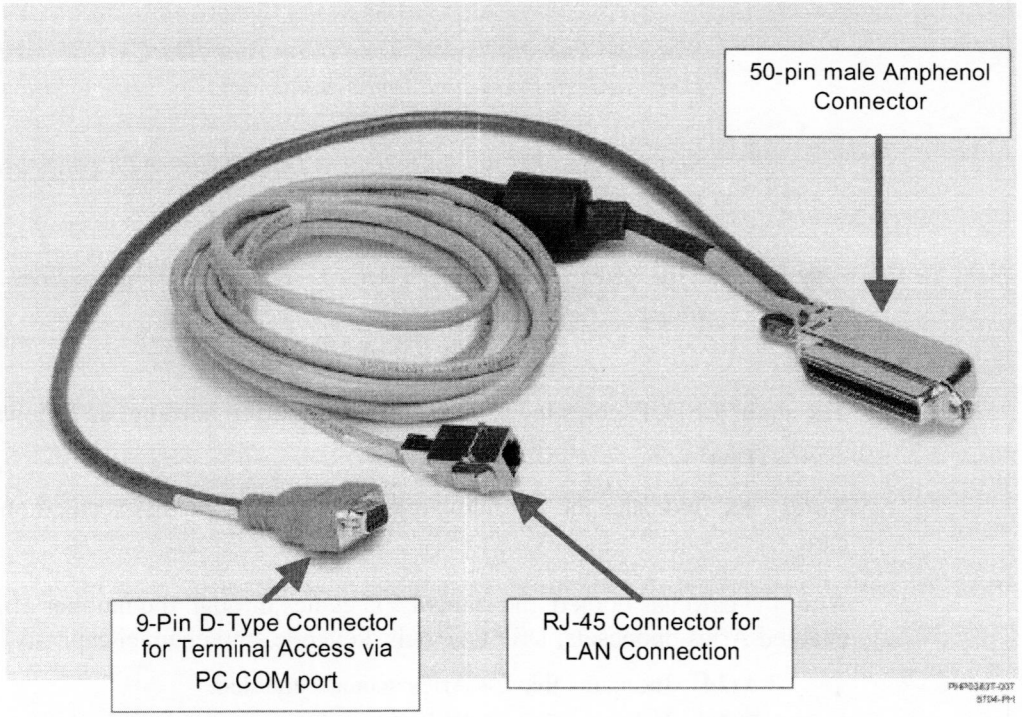
MAIN

Notes



An Octopus Cable with a 50-pin male Amphenol connector at one end, and both a 9-pin D-type connector and an RJ-45 connector on the other end, is provided for all installations. Connection to the LAN is provided via the RJ-45 connector, and maintenance terminal access via a COM port on a PC is provided with the 9-pin D-type connector.

Figure 5: The VS Card Octopus Cable for the Meridian 1 Option 11 - 81C Switch

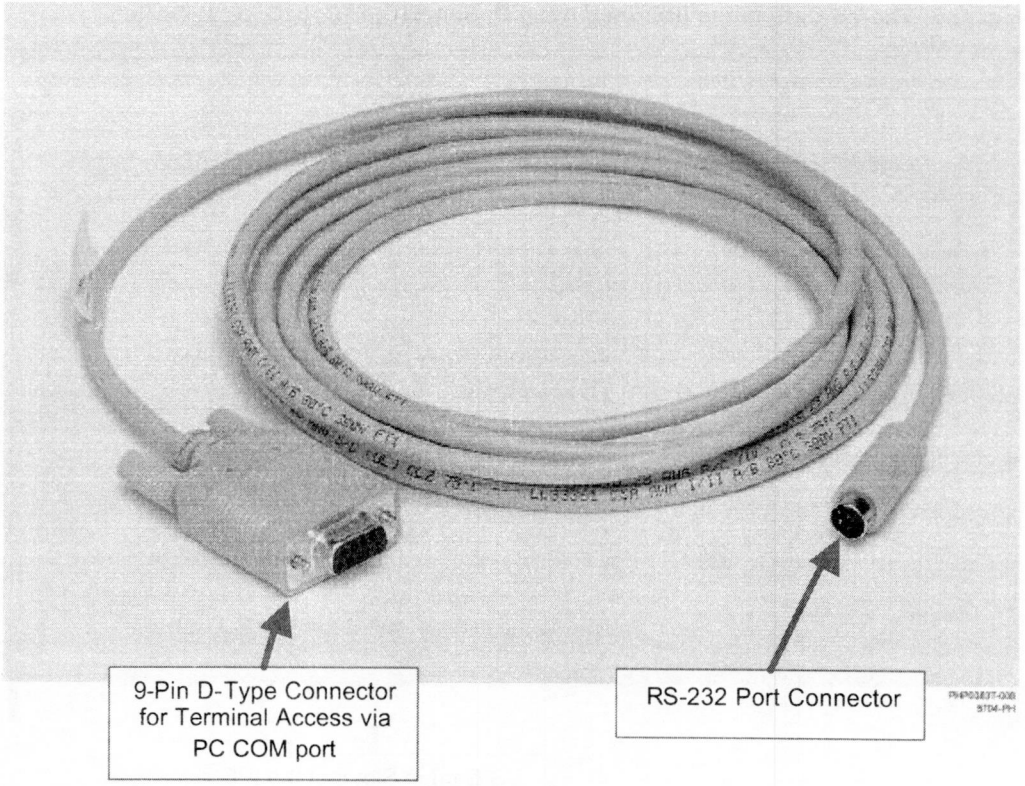


Notes



A maintenance terminal cable with an RS-232 Port connector at one end, and a 9-pin D-type connector on the other end is provided to allow direct access to the maintenance terminal from the front panel RS-232 Port.

Figure 6: The VS Card Maintenance Terminal Cable



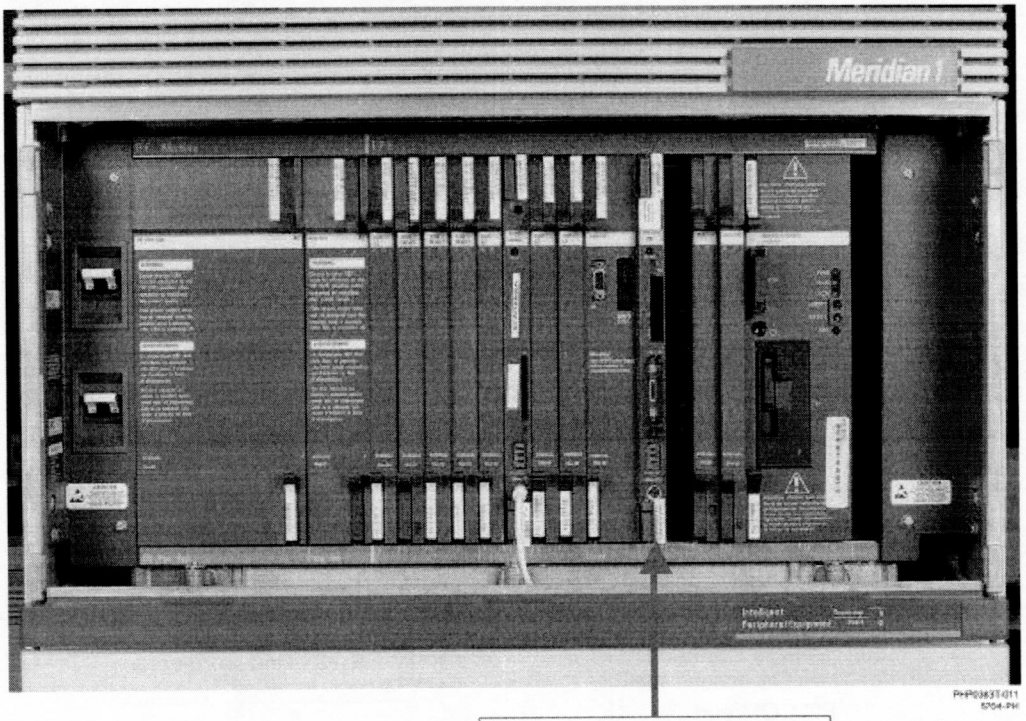
Notes



Installation in the Meridian 1 Switch

Install the VS card in the Meridian 1 Option 51C, 61C, 81C, or 81 switch on the IPE shelf, as shown in the figures below.

Figure 7: The VS Card in the IPE Shelf of an Option 51C, 61C, 81C, or 81 Switch



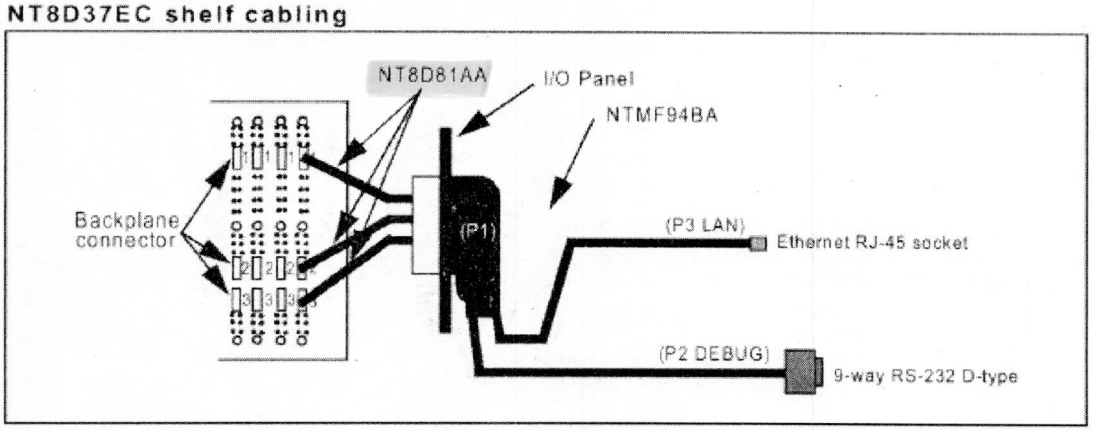
VS Card in Slot 8 of the IPE Shelf of an Option 51C, 61C, 81C, or 81 Switch

Tip: *With the NT8D37DC shelf, a Voice Services Card will only work in card slots 0, 4, 8, and 12, unless you install cable NT8D81AA.*

Notes

Figure 8: VS Card Installation in the Meridian 1 Option 51C, 61C, 81C, or 81

NT8D37EC shelf cabling



NT8D37DC shelf cabling

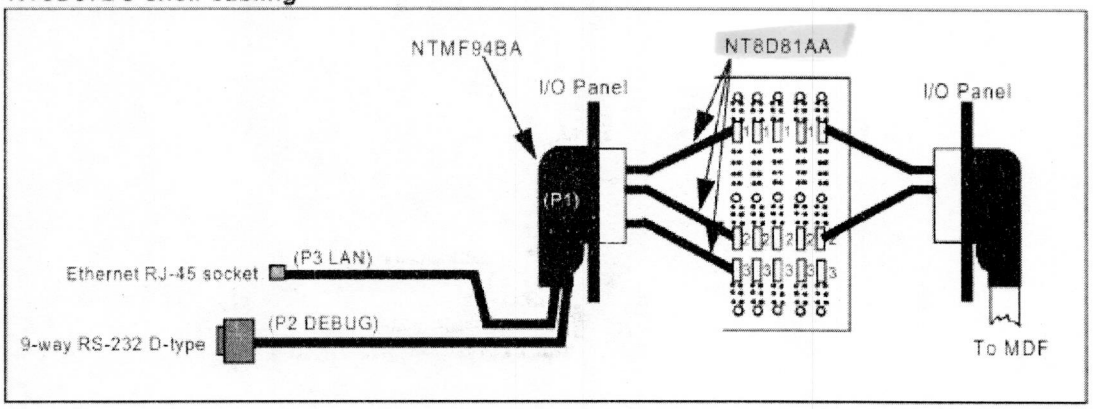


Figure 9: The VS Card Backplane Cable for the Meridian 1 Option 51C, 61C, 81C, or 81

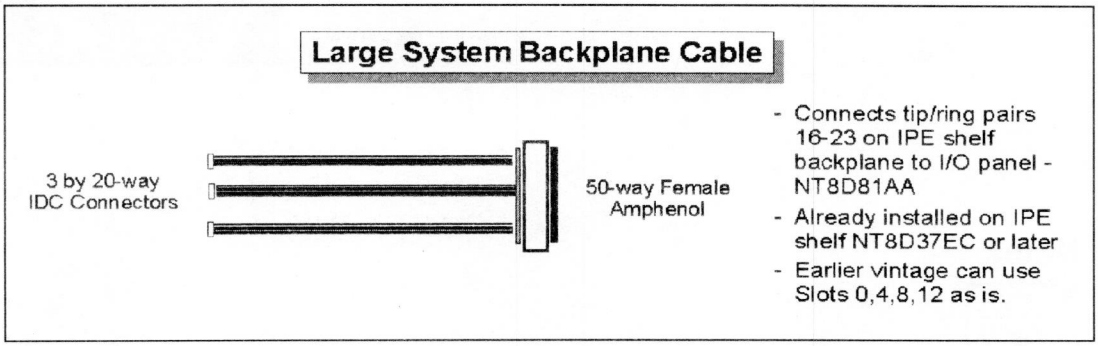
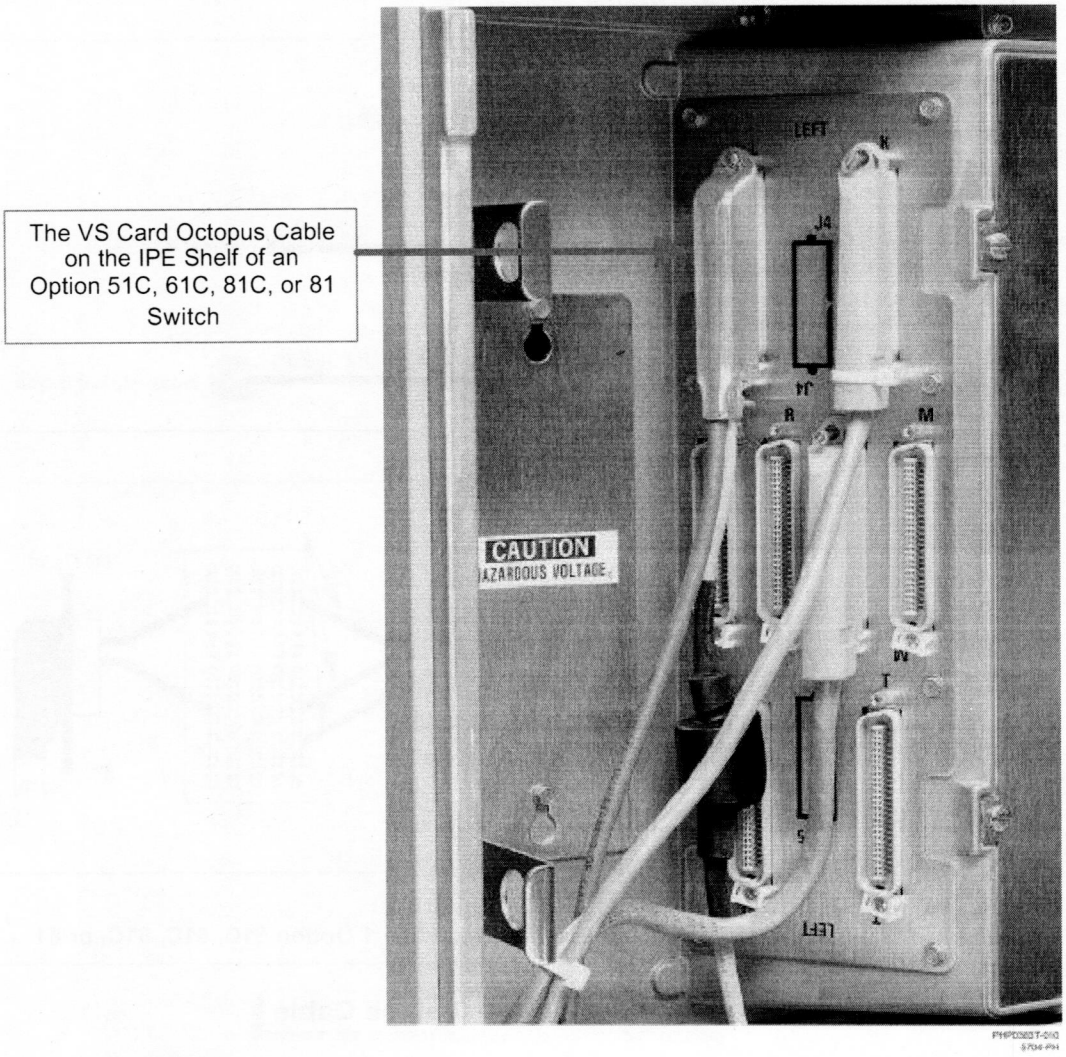


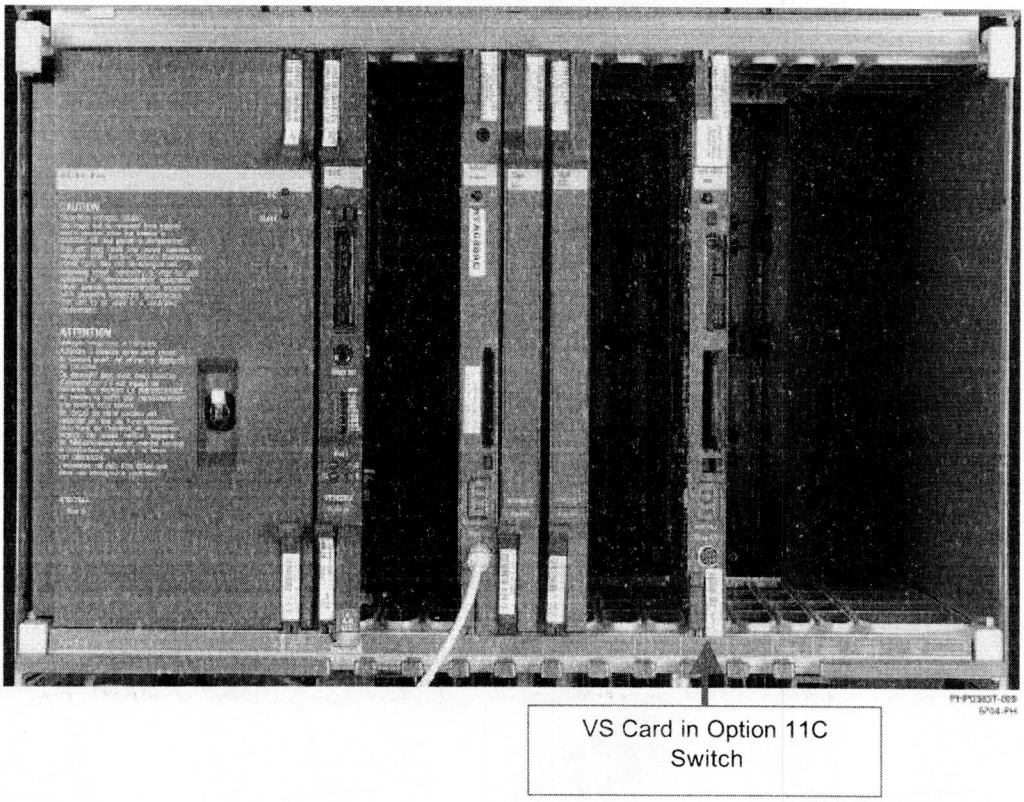
Figure 10: VS Card Shelf Cabling on the IPE Shelf of an Option 51C, 61C, 81C, or 81 Switch



Notes

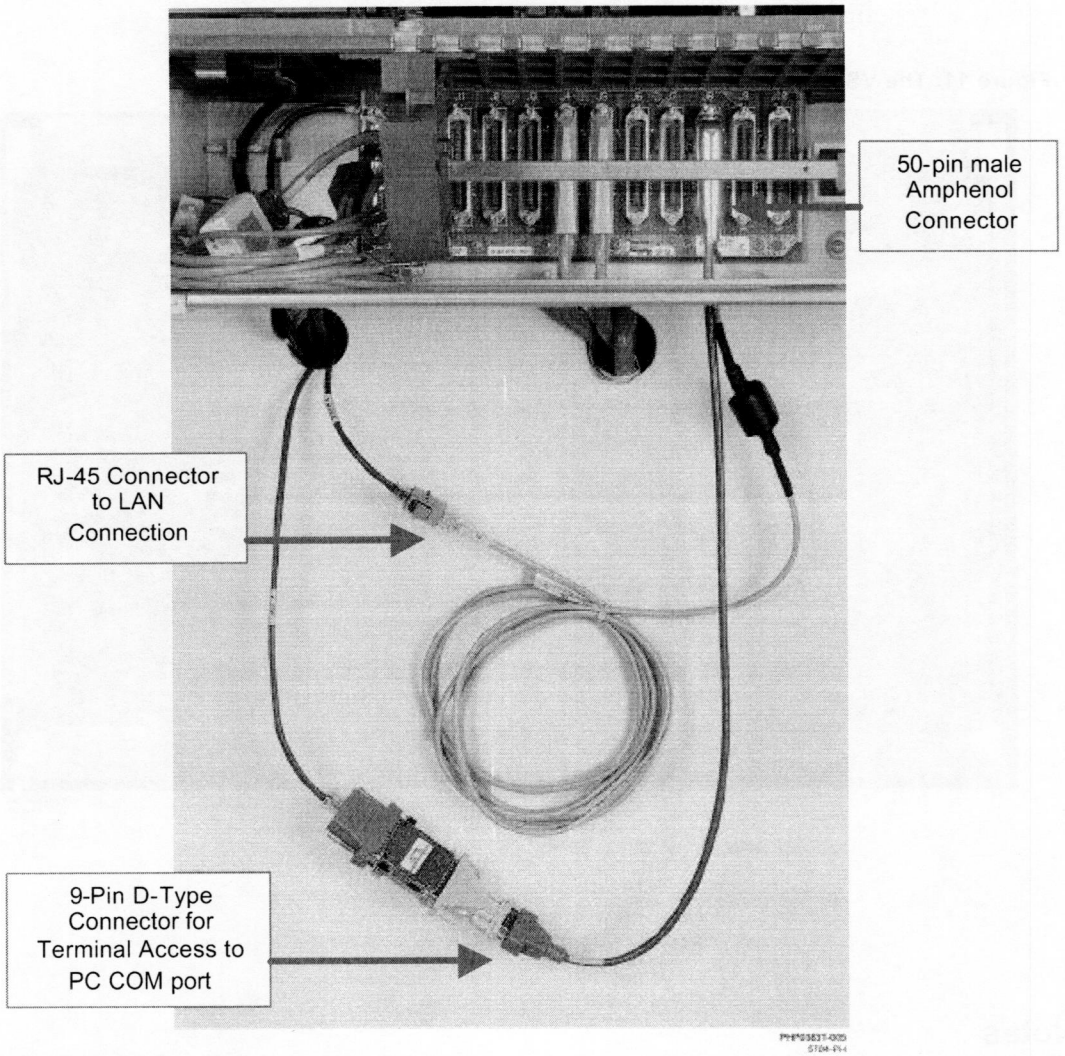
Install the VS card in the Meridian 1 Option 11C switch, as shown in the figures below.

Figure 11: The VS Card in the IPE Shelf of an Option 11C Switch



Notes

Figure 12: The VS Card Octopus Cable Connection on an Option 11CSwitch



Notes



Voice Services Card Installation

Follow the steps listed below to complete the VS card installation:

- Determine the cabinet, shelf, and slot location where the VS card is to be installed.
- Unpack and inspect the circuit card.
- Install a 48 Mbyte ATA HD card in the slot labeled A: or B: on the VS card.
- Insert a dongle into the socket on the VS card if it is not already present.
- Insert the VS card into its assigned IPE slot, but do not fully seat the card.
- If required, install additional DSP cards.
- Connect cables.



Caution: Risk of System Failure

Do not connect terminal equipment to both the backplane serial connector on NTMF94BA and the faceplate serial connector on NTAG81CA. These are physical cabling options for the same serial port.

Note: Do not cable the card for Ethernet until after the IP address has been configured.

- Fully insert the VS card in its assigned slot and lock latches.

During power up, the hex LED display provides a visual progress indication of self-tests, and provides information on the first failure detected.



Tip: *Hex display codes are provided in the "NTHF77AA Voice Services test and debug capabilities" section of the Voice Services Card Maintenance and Troubleshooting Guide.*

Note: The red LED on the faceplate of the VS card remains lit until a unit has been configured and matched with a DSP port.

Notes





Practice

VS Card Installation Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Voice Services Card Installation Guide,* and the *Meridian 1 System Installation and Maintenance Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

1. What is the maximum number of DSP channels that can be installed on a single VS card for use with the Symposium Express Call Center?

- a. 8
- b. 16
- c. 24
- d. 32

Select Answer

2. The Octopus Cable that is provided for all installations provides a 50 pin male Amphenol connector at one end and connectors for which two other connections?

- a. The backplane connection and the COM port connection
- b. The DB-25 connection and the RJ-45 connection
- c. The Serial port connection via the backplane and the Amphenol connection
- d. The LAN connection and the COM port connection

reset

Setting Up the Voice Services Card Maintenance Terminal

The maintenance terminal connection is configured as follows:

- VT100 Emulation
- 9600 Baud Rate
- 8 Data Bits, 1 Stop Bit and No Parity
- Flow control set to "none"
- A Null Modem is not required
- If using a Windows-based terminal emulator, you must disable the CTRL and arrow keys with the Windows system.

Log In to the Voice Services Card

After you have set up the terminal emulation, for example using Hyper Terminal, you should have a > prompt. Log in to the VS Card maintenance terminal as follows:

Login: **vpsdseuser**
Password: **welcome2vp**

Maintenance Mode

At the command prompt, type **maintModeOn**, and then press **Enter** to place the VS card in maintenance mode.

Notes



Important Commands in the VxWorks Shell



Tip: *The command **lkup "lnIsa"** will give you a list of all commands related to setting the IP address.*

- **IfShow:** Shows the current IP Address and Subnet Mask of VS Card
- **Pwd:** Shows the drive letter currently being pointed to.
- **ll:** Shows a current directory listing on PCMCIA card
- **swInfoGet:** Shows the current version of loadware installed.
- **lkup "xxxxx":** Where xxxxx is an element of a command
- **shellPasswordSet:** Allows you to change the shell password with the commands below:
  - Enter current username: vpsdseuser
  - Enter current password: welcome2vp
  - Enter new username: <must be between 8-12 characters long>
  - Enter new password: <must be between 8-10 characters long>
  - Enter new password again to confirm:

Set the IP Address and Subnet Mask

Follow the instructions below to set the IP address and subnet mask for the VS card:



Caution: Risk of Network Failure
Assignment of an IP address requires care to ensure that you have a unique IP address, the correct Subnet Mask, and the correct default Gateway IP address. An incorrect IP address or Subnet Mask can bring down the LAN to which the card is connected. An incorrect Gateway Address means that the card is inaccessible beyond its local LAN.

Notes





Tip: *When entering the IP address and subnet mask, the address must be entered in quotation marks, as shown below, or the address will not be accepted.*



Tip: *When using the VS card maintenance terminal to enter commands, all successful commands will return a value of "value = 0 = 0 x 0.*

Note: These commands are case-specific. If you enter any part of the command in the incorrect case, the command fails. Also, the first letter in each function is a lowercase 'l' (as in lima), and the third letter in each function is an uppercase 'I' (as in Indigo).

First you must set the method for the IP address assignment. The options are 1 = DHCP and 2 = Static IP address. For installation with Symposium Express Call Center, the VS card requires a Static IP address. To set the IP address method, enter the command line:

->lnIsaIPMethodSet 2

Next, to set the IP address, enter the command line:

->lnIsa_writeIP "aaa.bbb.ccc.ddd"

To set the subnet mask, enter the command line:

->lnIsa_writeSubnetMask "aaa.bbb.ccc.ddd"

As an option, enter the following command line if you need to set a default gateway address for your network:

->lnIsa_writeGW "aaa.bbb.ccc.ddd"

After you have entered the IP address and subnet mask, reboot the VS card with the following command line:

->sysReboot

When the VS card has rebooted, log on to the card and use the following command line to ensure that the card has initialized with the correct IP configuration:

->hostShow

Notes



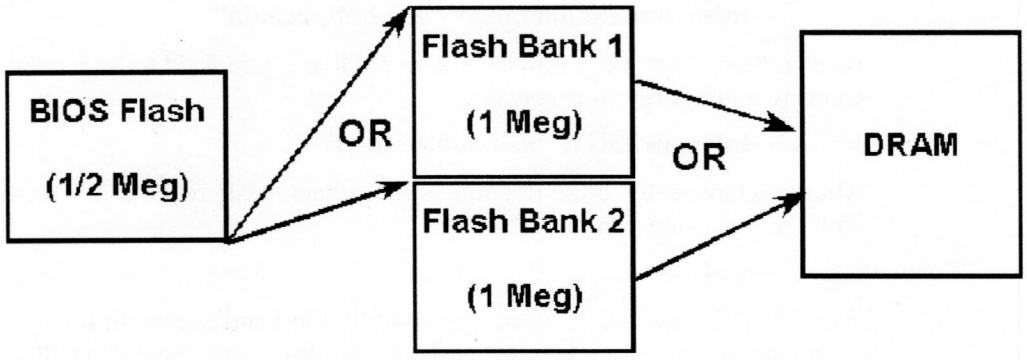
Upgrading Voice Services Card Software

You may need to upgrade the call recording software loaded on the VS card. This process involves using the LAN connection to transfer loadware image files to the card using the File Transfer Protocol (FTP). You will need to establish both a terminal connection and an FTP session to the VS card from your PC.

Before you perform the upgrade procedure, you need to understand where the loadware files are stored on the VS card and how the card accesses the loadware upon boot-up. The VS card has several memory storage locations. Each card has one .5 Mbyte flash memory for the Basic Input/Output System (BIOS). The card also has two memory flash banks, each with 1 Mbyte of random access memory (RAM), and an expansion slot for DRAM SIMMs that can have a capacity from 4 to 32 Mbytes of RAM.

When the VS card is powered up, a boot code stored in the BIOS directs the system to boot from the newest software image found in the memory. During the upgrade process the system checks to see if there are two different software images stored in the two flash memory banks. If there are two images, the oldest image is overwritten and the newer image remains unchanged. This leaves a working software image in the memory to boot the VS card from if the upgrade process fails.

Figure 13: The Memory Storage on the VS Card



Notes



Determine the Firmware and Loadware Version

You must check the version number of the firmware and loadware on the VS card to ensure that you have the latest available version. Your distributor or Nortel Networks representative can provide the latest firmware version.

Follow the steps below to determine the firmware version:

- Establish a serial connection to the Voice Services card.
- Restart the card by pressing the **Reset** button on the faceplate. The version numbers of the card firmware displays.

The following figure is an example of a startup sequence.

Figure 14: The Voice Services Card Startup Sequence with Firmware Version

```
VPS Firmware Rls 5.0
8051XA Firmware Version 6.3 29 August 2000
(C) Nortel Networks Inc. 2000
32K External RAM detected
8K DPRAM detected
Dongle serial number: 10062387
All FPGAs are configured
All self tests have passed
1234
Memory Test Completed OK

BIOS ROM Version 4.1
Copyright: Nortel Inc., 1996-2000
...
```

Notes



To determine the loadware version, log on to the Voice Services card, and then run the command:

-> **swInfoGet**

The loadware version is displayed as shown in the figure below.

Figure 15: The Loadware Version as Shown with the swInfoGet Command

```
-> swInfoGet
SECC Voice Services Rev: 01:04
DSP 0 Software Stream: NG0303_   Date: 990920
DSP 1 Software Stream: NG0303_   Date: 990920
*Dsp Card in slot 2 not inserted
value = 0 = 0x0
-> XA Firmware Release: (null)
```

Upgrading the Voice Services Card Firmware

To perform the upgrade procedure, you must first disable the card in overlay 23 and then place the card in maintenance mode. The software upgrade is performed via the VxWorks shell.

Ensure that the octopus cable is connected to the correct IPE backplane port and that the RJ-45 connector is connected to the LAN. To verify the LAN connection, open an MS DOS window on your PC and use the Ping command to the VS card's IP address. For example:

c:\ **ping aaa.bbb.ccc.ddd**



Tip: *After the VS card IP address has been verified, you can open a terminal session on the card via a Telnet connection. The Telnet connection may be more convenient than using the HyperTerminal interface.*

Notes



Transfer the Loadware Image File

Using the terminal connection from your PC to the VS card, log on using the same password and username that you used previously. Enter the maintenance mode on the VS card with the following command:

->**maintModeOn**

Open an MS DOS window on your PC and type **ftp** to begin an FTP session. The prompt changes to **ftp>**. Enter the following commands:

ftp> **open aaa.bbb.ccc.ddd**

Note: aaa.bbb.ccc.ddd is the IP address for the VS card.

This opens a second connection to the VS card. From the ftp prompt, log on to the VS card using the user name and password below:

ftp> user>**vpsdseuser**
password>**welcome2vp**



Tip: *On the VS card, use the **pwd** command to identify whether the current path is /A:. If the current path is not correct, use the **cd** command to change directories to /A:*



Tip: *You are not required to use the /A: drive PCMCIA card. As an option you can use the /B: drive card. If you are using the /B: drive, change directories and transfer the file to that drive.*

Transfer the loadware file to the /A: drive PCMCIA card on the VS card with the following command:

ftp> **put <filename.mms>**

Notes



Perform the Upgrade

To perform the loadware upgrade, access the VS terminal and enter the following command:

-> **upgradePCMCIA "/A:" < filename.mms>**

The VS system upgrades the loadware as shown in the figure below:

Figure 16: The Loadware Upgrade Process

```
-> upgradePCMCIA "/A: < filename.mms >"
   Updating sector: 0..1..2..3..4..5..6..7..file read complete
         Program Address =      0xf9800000
         Checksum =             0xc7d85ce7
         length =               0x7ef0c
   Upgrade completed OK
   Reboot the pack to run new loadware
->sysReboot
```

After the upgrade is complete, use the following command to reboot the card:

-> **sysReboot**

Notes



Upgrading the Firmware on the VS DSP Cards

You may also need to upgrade the firmware on the DSP cards to insure that they have the correct software to operate with the Symposium Express Call Center and the VS card. This procedure is very similar to the loadware upgrade covered in the previous section.

As with the loadware upgrade, the VS card must be disabled in overlay 32 and placed into maintenance mode. Also, as before, the upgrade will be performed via the VxWorks Shell.

Transfer the DSP Firmware File

Log on using the same password and username that you used previously. Enter the maintenance mode on the VS card with the following command:

->maintModeOn

Open an MS DOS window on your PC and type **ftp** to enter the FTP session. The prompt changes to ftp>. Enter the following commands:

ftp> **open aaa.bbb.ccc.ddd**

Note: aaa.bbb.ccc.ddd is the IP address for the VS card.

From the ftp prompt, log on to the VS card using the user name and password below:

ftp> user> **vpsdseuser**
password>**welcome2vp**

Transfer the loadware file to the /A: drive PCMCIA card on the VS card with the following command:

ftp> **put <filename.lbin>**

Perform the DSP Firmware Upgrade

To perform the DPS Firmware upgrade, access the VS terminal and enter the following command:

-> **upgradeDsp x, "<path>", "lmag84aa.lbin"**

Notes



Tip: *In the command "upgrade Dsp x", the "x" refers to the location of the DSP card that you are upgrading. The locations of the DSP cards are as follows:*

- *0 is the on-board DSP*
- *1 is DSP card D1*
- *2 is DSP card D2*

All DSP locations loaded on the VS card must be upgraded at the same time.

Tip: *The path refers to the location where the DSP firmware file is located. For example, A:\ is the path for the A drive PCMCIA card on the VS card.*

Tip: *The file name given above, "lmag84aa.Ibin", is provided as an example only. Your DSP Firmware file name will be different.*

The VS system upgrades the DSP Firmware as shown in the figure below:

Figure 17: The DSP Firmware Upgrade Process

```
-> upgradeDSP 1 "/A:" "lmag84aa.lbin"
   Updating sector:
   0..1..2..3..4..5..6..7..8..9..10..11..12..13..14..15..
   16..17..18..19..20..21..22..23..24..25..26..27..28..29..30..31..

   DSP Checksum OK!!!
   DSP Load upgraded OK

->sysReboot
```

After the upgrade is finished, use the following command to reboot the card:

-> **sysReboot**

Notes





Practice

VS Card Installation Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Voice Services Card Installation Guide,* and the *Meridian 1 System Installation and Maintenance Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

3. What command will you use to set the method for IP address assignment?

- a. ->lnIsaIPMethodSet 1
- b. ->lnIsaIPMethodSet 2
- c. ->ifShow
- d. ->swInfoGet

Select Answer

4. What command will you use to enter the maintenance mode on the VS card?

- a. ->lnIsaIPMethodSet
- b. ->maintModeOn
- c. ->sysReboot
- d. ->upgradeDsp x

reset

Configuring Switch Assets for the VS Card

Now that your VS card is installed in the switch, connected to the LAN, and loaded with the correct loadware for Symposium Express Call Center, you must to configure the switch to work with the VS card.

Configure the IVR ACD Queue

First, configure an ACD Queue on the switch for each call treatment that will be built on the VS card. The virtual VS agents will use this queue to service incoming calls, as required in your call center.

Use the prompts and responses shown below to define the IVR ACD Queue in overlay 23:

LD 23

Prompt	Response	Description
REQ	NEW	
TYPE	ACD	
CUST	XX	Customer Number
ACD	XXXX	ACD Number
MAXP	XX	Maximum VS positions
MWC	YES	
IVR	YES	

Configure the VS Agent Sets

Configure the VS Agent sets as 2616 Aries sets on the Switch. These sets are virtual agents that will log in to the IVR ACD Queue that you configured previously.

Notes



There is a fixed mapping between VS Ports and DSP units that is shown in the figure below:

Table 1: VS Ports Mapped to DSP Units

DSP Port	Unit TNs
On Board	0 – 7
D1 Card	8 – 15
D2 Card	16 - 23

To define the VS Agent sets in overlay 11, use these prompts and responses.

LD 11

Prompt	Response	Description
REQ	NEW	
TYPE	2616	
TN	XX XXX	VS Agent TN
DES	xxxxxxx	Description
CUST	XX	Customer Number
KEY 00	ACD xxxx 0 yyyy	
KEY 01	SCR zzzz	
KEY 02	TRN	
KEY 03	MSB	



Tip:

- *xxxx is the number of the ACD Queue that the virtual agent will be logged in to*
- *yyyy is the unique position ID of the virtual agent*
- *zzzz is the DN of the virtual agent that is used during transfers*

Notes



The number of virtual agents that you can configure is limited by your keycode and the number of DSP ports active on your VS card. The VS card has eight onboard DSP ports, which allow the operation of eight virtual VS agents. You can add two DSP expansion cards to each VS card. Each DSP expansion card provides 8 additional ports, allowing for a maximum of 24 ports on the VS card. Therefore, 24 virtual agents are possible for your VS card. If you expand the DSP port capacity on your VS card, you must upgrade your keycode. With out the proper keycode, the expanded hardware will not be usable.

You must configure a virtual set for each DSP port. It is recommended that you configure these sets beginning from port 0.

Notes





Practice

VS Card Installation Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Voice Services Card Installation Guide,* and the *Meridian 1 System Installation and Maintenance Guide.* Verify your answers with the Answers to Practice pages that follow.

Select Answer

5. There is a fixed mapping between VS Ports and DSP units; which VS Ports correspond to the DSP card D1?

- a. 0 - 7
- b. 8 - 15
- c. 16 - 23
- d. 24 - 31

Select Answer

6. Which of the following limits the number of ACD virtual agents that can be assigned to your VS card?

- a. The number of agents logged in to the call center and your keycode
- b. Your keycode and the number of ATA HD cards loaded in your VS card
- c. The number of DSP ports and the number of agents active on your VS card
- d. The number of DSP ports that are active on your VS card and your keycode

reset



Answers to Practice

VS Card Installation Questions

Check your answers to the practice.

1. What is the maximum number of DSP channels that can be installed on a single VS card for use with the Symposium Express Call Center?

   a. 8

   b. 16

   c. 24

   d. 32

2. The Octopus Cable that is provided for all installations provides a 50 pin male Amphenol connector at one end and connectors for which two other connections?

   a. The backplane connection and the COM port connection

   b. The DB-25 connection and the RJ-45 connection

   c. The Serial port connection via the backplane and the Amphenol connection

   d. The LAN connection and the COM port connection

3. What command will you use to set the method for IP address assignment?

   a. ->lnIsaIPMethodSet 1

   b. ->lnIsaIPMethodSet 2

   c. ->ifShow

   d. ->swInfoGet

4. What command will you use to enter the maintenance mode on the VS card?

   a. ->lnIsaIPMethodSet

   b. ->maintModeOn

   c. ->sysReboot

   d. ->upgradeDsp x

5. There is a fixed mapping between VS Ports and DSP units; which VS Ports correspond to the DSP card D1?

   a. 0 - 7

   b. 8 - 15

   c. 16 - 23

   d. 24 - 31

6. Which of the following limits the number of ACD virtual agents that can be assigned to your VS card?

   a. The number of agents logged in to the call center and your keycode

   b. Your keycode and the number of ATA HD cards loaded in your VS card

   c. The number of DSP ports and the number of agents active on your VS card

   d. The number of DSP ports that are active on your VS card and your keycode



Skill check

VS Card Installation

Use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide, Symposium Express Call Center Voice Services Card Installation Guide,* and the *Meridian 1 System Installation and Maintenance Guide* as reference material to assist in performing the tasks below.

If the equipment is not available, write out the procedures that you need to follow to complete the tasks.

1. Install the DSP and ATA Hard Drive PCMCIA expansion cards provisioned into correct card-slots on the VS card.
2. Install the VS card in the switch.
3. Set up the VS card maintenance terminal.
4. Set the IP Address and subnet mask.
5. Upgrade the VS card loadware (Optional).
6. Upgrade the firmware on the VS DSP cards (Optional).
7. Configure the IVR ACD queue on the switch.
8. Configure the VS agent phonesets.



Skill Check Feedback

VS Card Installation

You have successfully completed the practice when the VS card is installed in the switch with the required hard drives, DPS cards, and DRAM SIMMs installed; all cables are connected; the IP address and subnet mask are assigned; the loadware is upgraded; and the IVR ACD queue and agent sets are configured on the switch.

Step	Install and Configure the VS Card in the Switch	V
1	Install the DSP and ATA Hard Drive PCMCIA expansion cards provisioned into correct card-slots on the VS card: 1. Insert DSP Expansion cards in card slots D2 2. Insert ATA Hard Drive cards in card slots A:\ (front panel) and B:\ (on VS card motherboard)	
2	Install the VS card in the switch: 1. Determine the cabinet, shelf, and slot location where the VS card is to be installed. 2. Unpack and inspect the circuit card. 3. Install a 64 Mbyte ATA HD card in the slot labeled A: or B: on the VS card. 4. Insert a dongle into the socket on the VS card if it is not already present. 5. Install the VS card on the IPE shelf in the Meridian 1 Option 51C, 61C, 81C, or 81 switch Or, Install the VS card in the Meridian 1 Option 11C Or, Install the VS card in the Media Gateway or Media Gateway Expansion in the Succession CSE 1000 system 6. Insert the VS card into its assigned slot, but do not fully seat the card. 7. If required, install additional DSP cards. 8. Connect cables. 9. Fully insert the VS card in its assigned slot and lock latches.	

Step	Install and Configure the VS Card in the Switch (continued)	V
3	Set up the VS card maintenance terminal: 1. Connect the maintenance terminal cable to the front panel RS-232 maintenance terminal port or connect the 9-pin D-type connector on the VS card octopus cable to the COM port on the maintenance terminal PC. 2. Configure the terminal emulation program to the following settings: - VT100 Emulation - 9600 Baud Rate - 8 Data Bits, 1 Stop Bit and No Parity - Flow control set to "none" - A Null Modem is not required - If using a Windows-based terminal emulator, you must disable the CTRL and arrow keys with the Windows system. 3. Log in to the VS Card maintenance terminal with the following User Name and Password: - Login: **vpsdseuser** - Password: **welcome2vp** 4. At the command prompt, type **maintModeOn**, and then press **Enter** to place the VS card in maintenance mode.	
4	Set the IP Address and subnet mask: 1. Set the method for the IP address assignment with the following command: **->lnIsaIPMethodSet 2** **2.** Set the IP address with the following command: **->lnIsa_writeIP "aaa.bbb.ccc.ddd"** 3. Set the subnet mask with the following command: **->lnIsa_writeSubnetMask "aaa.bbb.ccc.ddd"** 4. Set the default gateway address for your network with the following command (optional): **->lnIsa_writeGW "aaa.bbb.ccc.ddd"** 5. Reboot the VS card with the following command: **->sysReboot** 6. Display the IP configuration with the following command: **->hostShow**	

Step	Install and Configure the VS Card in the Switch (continued)	V
5	Upgrade the VS card loadware (Optional): 1. On the VS card maintenance terminal window, enter the maintenance mode on the VS card with the following command: **->maintModeOn** 2. Open an MS DOS window on your PC and type **ftp** to begin an FTP session. The prompt changes to **ftp>**. 3. On the MS DOS window, enter the following commands: ftp> **open aaa.bbb.ccc.ddd** where aaa.bbb.ccc.ddd is the IP address for the VS card 4. On the MS DOS window, log in to the VS Card maintenance terminal with the following User Name and Password: - Login: **vpsdseuser** - Password: **welcome2vp** **5.** On the MS DOS window, transfer the loadware file to the /A: drive PCMCIA card on the VS card with the following command: ftp> **put <filename.mms>** 6. On the VS card maintenance terminal window, perform the loadware upgrade with the following command: -> **upgradePCMCIA "/A:" < filename.mms>** 7. On the VS card maintenance terminal window, after the upgrade is complete, reboot the VS card with the following command: -> **sysReboot**	
6	Upgrade the firmware on the VS DSP cards (Optional): 1. On the VS card maintenance terminal window, enter the maintenance mode on the VS card with the following command: **->maintModeOn** 2. Open an MS DOS window on your PC and type **ftp** to begin an FTP session. The prompt changes to **ftp>**. 3. On the MS DOS window, enter the following commands: **ftp> open aaa.bbb.ccc.ddd** where aaa.bbb.ccc.ddd is the IP address for the VS card 4. On the MS DOS window, log in to the VS Card maintenance terminal with the following User Name and Password: - Login: **vpsdseuser** - Password: **welcome2vp** 5. On the MS DOS window, transfer the loadware file to the /A: drive PCMCIA card on the VS card with the following command: **ftp> put <filename.lbin>** 6. On the VS card maintenance terminal window, perform the DPS Firmware upgrade with the following command: **-> upgradeDsp x, "<path>", "lmag84aa.lbin"** 7. On the VS card maintenance terminal window, after the upgrade is complete, reboot the VS card with the following command: **-> sysReboot**	

Step	Configure the Switch Resourced for the VS Card	V
7	Use the following commands in LD 23 to configure the IVR ACD queue on the switch: REQ NEW TYPE ACD CUST XX ACD XXXX MAXP XX MWC YES IVR YES	
8	Use the following commands in LD 11 to configure the VS agent phonesets: REQ NEW TYPE 2616 TN XX XXX DES xxxxxxx CUST XX KEY 00 ACD xxxx 0 yyyy KEY 01 SCR zzzz KEY 02 TRN KEY 03 MSB	

Summary

In this lesson you learned how to install and configure the Voice Services card in your switch. You installed optional expansion and memory cards onto the VS card and assigned the network address and net mask. You upgraded the software loaded on the card and configured the IVR ACD queue and VS agent phonesets that will be used with the VS card. The card is now configured for use in your Symposium Express Call Center. In upcoming lessons you will import VS card data to the server PC and record comfort messages and voice menus.

Customer-Supplied Equipment

Introduction

Symposium Express Call Center is a software-only product. The customer or distributor must purchase the required hardware directly from a computer hardware vendor. In this lesson you will learn the hardware and software requirements for Symposium Express Call Center server and client PCs.

Objective

At the conclusion of this lesson, given your notes, lesson material, and the *Symposium Express Call Center Planning, and Installation Guide*, you will be able to complete the following tasks:

- Identify the hardware and software requirements for the server PC
- Identify the hardware and software requirements for the client PC

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Getting Started" and "Installing the Software"		

Symposium Express Call Center Server Requirements

Nortel Networks requires that both the Symposium Express Call Center server and client application software be installed on the server PC. This allows a customer to have a minimum configuration with just one PC, and enables remote support of the Symposium Express Call Center product with pcAnywhere software. Below are detailed hardware requirements and recommendations for the server PC.

Note: For a detailed overview of the PVI solution, see the *Symposium Express Call Center Platform Vendor Independence* product bulletin.



Tip: *The server must also meet the requirements of Microsoft's Hardware Compatibility List for the applicable Windows 2000 operating system. See the Microsoft Web site for details.*



Tip: *To check whether a particular server meets the basic requirements for Platform Vendor Independence, Nortel Networks provides a Platform Compliance Check utility. This program is included on the Server Application CD and is run at the start of the installation process. It generates warnings and suggestions if your server does not meet the minimum or suggested requirement.*

The Platform Compliance Check utility does not check all requirements for Platform Vendor Independence. You still must ensure that the server meets the requirements listed in this lesson and the Symposium Express Call Center Planning, Installation, and Administration Guide.

Notes



Server PC Requirements

The minimum hardware requirements:

- 500 MHz Pentium III minimum processor type
- 256 Mbytes RAM minimum memory
- 8 Gbyte minimum hard drive (12 Gbytes recommended)
- SVGA monitor with the following specifications:
  - 14" (a 15" or 17" monitor is optional)
  - Recommended minimum display setting of 1024 x 768
- Keyboard
- Mouse
- Tape drive for database backups – the following models are recommended by Nortel Networks:
  - HP SureStore DLT8000
  - IBM DDS 4mm
  - Tandberg SLR7 20–40 Gbyte
  - Dell PowerVault 110T



Tip: *Tape drives are optional. From Release 4.2, Symposium Express Call Center supports backups to a remote directory on a network PC.*

- CD-ROM drive (4x speed minimum)
- 3.5" floppy drive
- 10Base-T network interface card for connection to the ELAN
- Modem – V32 or V32bis compliant with minimum 28.800 baud rate
- Network interface card for connection to the CLAN (optional) running Microsoft TCP/IP



Tip: *The CLAN is required if you are installing additional client PCs, or if you are performing scheduled online database backups to a network PC rather than to a tape.*

- One serial port (required if a serial connection is to be used for remote access support)
- Windows 2000 Server or Windows 2000 Advanced Server installed on the C: partition
- Customer-supplied UPS for the server (optional)

Disk Partitions

You must create the server partitions in the following order and to the following specifications. The C drive must be configured as a Primary Partition and any subsequent partitions must be configured as Logical drives within Extended partitions.

First Partition
(for the operating system and co-resident client software)

- Disk partition letter must be C:
- Minimum size of 3 Gbytes (3072 Mbytes)
- Recommended size of 4 Gbytes (4096 Mbytes)
- File system type must be NTFS
- Must be located on disk 0
- Must be configured as a Primary Partition
- Minimum paging file of RAM times 1.5 (Microsoft recommendation). For example, if you have 256 Mbytes of RAM, then you need 384 Mbytes for the paging file (256 Mbytes x 1.5).

Second Partition
(for the Symposium Express Call Center server software)

- Disk partition letter must be D:
- Minimum size of 2 Gbytes (2048 Mbytes)
- Recommended size of 4 Gbytes (4096 Mbytes)
- File system type must be NTFS
- Must be configured as a Logical drive within an Extended partition

CD-ROM

- Drive letter must be E:
- Minimum speed of 4x

Notes



First database partition

Note: Nortel Networks recommends that this partition and all subsequent database partitions be located on a separate physical disk from partitions C: and D:. Additional database disk drive partitions can be located on separate physical disks, or on the same disk, based on your hardware configuration.



Tip: *All database partitions must be of equal size. For example, all partitions must be X Gbytes in size, where X can be from 4 Gybtes to 16 Gbytes in 1 Gbyte increments.*

- Disk partition letter must be F:
- Minimum partition size is 4 Gbytes (4096 Mbytes)
- Maximum partition size is 16 Gbytes (16 384 Mbytes)
- Increases to the partition size must be in 1 Gbyte (1024 Mbyte) increments
- File system type for all database partitions is NTFS

Additional database partitions

- Disk partition letters are G: to U:
- Minimum partition size is 4 Gbytes (4096 Mbytes)
- Maximum partition size is 16 Gbytes (16 384 Mbytes)
- Increases to the partition size must be in 1 Gbyte (1024 Mbyte) increments
- Maximum combined size of hard disk space for database partitions is 64 Gbytes (65 536 Mbytes)
- Maximum number of 16 Gbyte database partitions is 4
- File system type for all database partitions is NTFS



Caution: *The Symposium Express Call Center server PC must have no additional application software, especially database applications or data.*



Caution: *The Symposium Express Call Center server application software will not load on a PC where the Symposium Express Call Center client application software is already installed.*



Practice

Customer-Supplied Equipment Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide.* Verify your answers with the Answers to Practice pages that follow.

Select Answer

1. What is the minimum RAM memory required for a Symposium Express Call Center server PC?

- a. 64 Mbytes
- b. 128 Mbytes
- c. 256 Mbytes
- d. 512 Mbytes

Select Answer

2. In the Symposium Express Call Center server PC, how is the D: partition formatted?

- a. Minimum 1Gbytes, 2Gbytes recommended, FAT file system
- b. Minimum 2Gbytes, 4Gbytes recommended, FAT file system
- c. Minimum 1Gbytes, 2Gbytes recommended, NTFS file system
- d. Minimum 2Gbytes, 4Gbytes recommended, NTFS file system

reset

Select Answer

3. Which type of network interface card (NIC) is required to connect the Symposium Express Call Center server PC to the ELAN?

- a. 10Base-T Ethernet
- b. 100Base-T Ethernet
- c. Token Ring
- d. OC3-C ATM

Select Answer

4. On the Symposium Express Call Center server PC, why is the tape drive considered to be optional equipment?

- a. Not all call centers will need to back up their data
- b. Call center data can be backed up on the C: hard drive
- c. Call Center data is backed up on the ATA hard drive cards on the Voice Services Card
- d. Symposium Express Call Center supports backups to a remote directory on a network PC

reset

Symposium Express Call Center Client Requirements

As an option, additional clients can be installed on stand-alone PCs operating on the CLAN. The following section provides detailed requirements for stand-alone client PCs where Symposium Express Call Center client software will be installed.

Client PC Requirements

The minimum hardware requirements are:

- 166 MHz Pentium II compatible CPU or higher minimum processor
- 64 Mbytes RAM recommended minimum. Increasing RAM memory generally improves responsiveness.
- 2 Gbyte hard drive with a minimum of 350 Mbytes of free space. The total hard drive space required depends on the options that are installed.
- SVGA monitor with the following specifications:
  - 14" (a 15" or 17" monitor is optional)
  - Recommended minimum display setting of 1024 x 768
  - Displayed colors greater than 256
- Keyboard
- CD-ROM drive (4x speed minimum)
- 3.5" floppy drive
- Network interface card for connection to the CLAN
- Windows 2000 Professional (Service Pack 3) or Windows XP Professional (Service Pack 1)
- Internet Explorer 5.5 or later



Tip: *Windows XP is installed with Internet Explorer 6.0*

- Microsoft TCP/IP protocol installed and configured



Caution: *If an earlier version than Sybase Open Client version 12 is installed on the client PC, you must uninstall it before you install the Symposium Express Call Center client software.*



Tip: *You must install Adobe Acrobat Reader with the Search plug-in to view online documentation.*



Practice

Customer-Supplied Equipment Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide.* Verify your answers with the Answers to Practice pages that follow.

Select Answer

5. On the Symposium Express Call Center server PC, why is the serial port COM1 required?

- a. The COM1 serial port is not required
- b. The COM1 serial port is required to connect the printer
- c. The COM1 serial port is required to connect to the switch
- d. The COM1 serial port is required if a serial connection is to be used for remote access support

Select Answer

6. On a Symposium Express Call Center server PC with two database partitions, if the first database partition drive F: is 4 Gbytes, what drive letter and how large can the second database partition be?

- a. Disk partition letter E: and at least 2Gbytes
- b. Disk partition letter G: and exactly 4Gbytes
- c. Disk partition letter H: and exactly 4Gbytes
- d. Disk partition letter can be G: to U: and up to 16Gbytes

reset

Select Answer

7. On the Symposium Express Call Center stand-alone client PC, which Internet browser software is required

- a. Internet Explorer 5.5 or later
- b. Internet Explorer 6.0 or later
- c. Netscape Communicator 4.5 or later
- d. Netscape Communicator 7.0 or later

reset



Answers to Practice

Customer-Supplied Equipment Questions

Check your answers to the practice.

1. What is the minimum RAM memory required for a Symposium Express Call Center server PC?

   a. 64 Mbytes

   b. 128 Mbytes

   c. 256 Mbytes

   d. 512 Mbytes

2. In the Symposium Express Call Center server PC, how is the D: partition formatted?

   a. Minimum 1Gbytes, 2Gbytes recommended, FAT file system

   b. Minimum 2Gbytes, 4Gbytes recommended, FAT file system

   c. Minimum 1Gbytes, 2Gbytes recommended, NTFS file system

   d. Minimum 2Gbytes, 4Gbytes recommended, NTFS file system

3. Which type of network interface card (NIC) is required to connect the Symposium Express Call Center server PC to the ELAN?

   a. 10Base-T Ethernet

   b. 100Base-T Ethernet

   c. Token Ring

   d. OC3-C ATM

4. On the Symposium Express Call Center server PC, why is the tape drive considered to be optional equipment?

   a. Not all call centers will need to back up their data

   b. Call center data can be backed up on the C: hard drive

   c. Call Center data is backed up on the ATA hard drive cards on the Voice Services Card

   d. Symposium Express Call Center supports backups to a remote directory on a netwo rk PC

5. On the Symposium Express Call Center server PC, why is the serial port COM1 required?

   a. The COM1 serial port is not required

   b. The COM1 serial port is required to connect the printer

   c. The COM1 serial port is required to connect to the switch

   d. The COM1 serial port is required if a serial connection is to be used for remote access support

6. On a Symposium Express Call Center server PC with two database partitions, if the first database partition drive F: is 4 Gbytes, what drive letter and how large can the second database partition be?

   a. Disk partition letter E: and at least 2Gbytes

   b. Disk partition letter G: and exactly 4Gbytes

   c. Disk partition letter H: and exactly 4Gbytes

   d. Disk partition letter can be G: to U: and up to 16Gbytes

7. On the Symposium Express Call Center stand-alone client PC, which Internet browser software is required

   a. Internet Explorer 5.5 or later

   b. Internet Explorer 6.0 or later

   c. Netscape Communicator 4.5 or later

   d. Netscape Communicator 7.0 or later

Summary

In this lesson you learned the hardware and software requirements for the Symposium Express Call Center server and client PCs. In the next lesson you will learn to set up the server in preparation for loading the Symposium Express Call Center software.

Setting Up the Server

Introduction

Symposium Express Call Center requires several parameters to be set on the target PCs prior to installation of the application software. This lesson provides information and practice exercises on how to configure the Windows 2000 Server operating system for your Symposium Express Call Center PVI server platform

If Windows 2000 Server is not pre-installed on your PVI server, this lesson refers to a checklist in the *Symposium Express Call Center Planning, Installation, and Administration Guide*, Server software Chapter that guides you through the Windows 2000 Server Setup wizard. However, you must refer to Microsoft software manuals for detailed Windows 2000 installation instructions. Additional detailed instruction is provided to cover how to enter your site-specific data and test the network connections.

Objective

At the conclusion of this lesson, given your notes, lesson materials, and the *Symposium Express Call Center Planning, Installation, and Administration Guide*, you will be able to perform the following tasks:

- Configure the Windows 2000 Server operating system for use with Symposium Call Center Server
- Identify critical tasks to be performed when completing the Windows 2000 Server Installation wizard on your PVI platform

You have successfully completed the tasks when you can perform the following:

- "Ping" the network using the IP address provided to validate connectivity of the CLAN and ELAN
- Use the Windows network test for viewing the directory under a network drive to validate connectivity with the network

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Getting Started" and "Installing the Software"		

Terms

NetBEUI

Microsoft's version of NetBIOS that governs data exchange and network access.

NetBIOS

IBM protocol that governs data exchange and network access.

Redundant Array of Independent Disks (RAID)

A category of disk drives that employs two or more drives in combination for fault tolerance and performance.

Transmission Control Protocol/Internet Protocol (TCP/IP)

A protocol designed for wide area networks that govern packet transmissions.

Configuring Windows 2000 Server



Tip: *The Symposium Express Call Center PVI server requires Windows 2000 Server or Windows 2000 Advanced Server operating system with Service Pack 2 or higher.*

You must configure the operating system on your server PC in preparation for the installation of the Symposium Express Call Center server software. The server PC may have the Windows 2000 operating system pre-installed or you may be required to perform a fresh installation of the operating system before you can proceed. Detailed checklists for each scenario are provided in the *Symposium Express Call Center Planning, Installation, and Administration Guide*, Server software Chapter.

Operating System Installation and Configuration Checklists

Complete the installation and configuration checklists located in the Getting started Chapter of the *Symposium Express Call Center Planning, Installation, and Administration Guide*. This worksheet contains required information, such as the computer name and IP addresses that you need to complete the Windows 2000 Server configuration tasks.

Computer Name and DNS Host Name

The computer name and the DNS host name must match exactly, to include upper case and lower case letters. If the names do not match, the Symposium Express Call Center server software installation will fail.

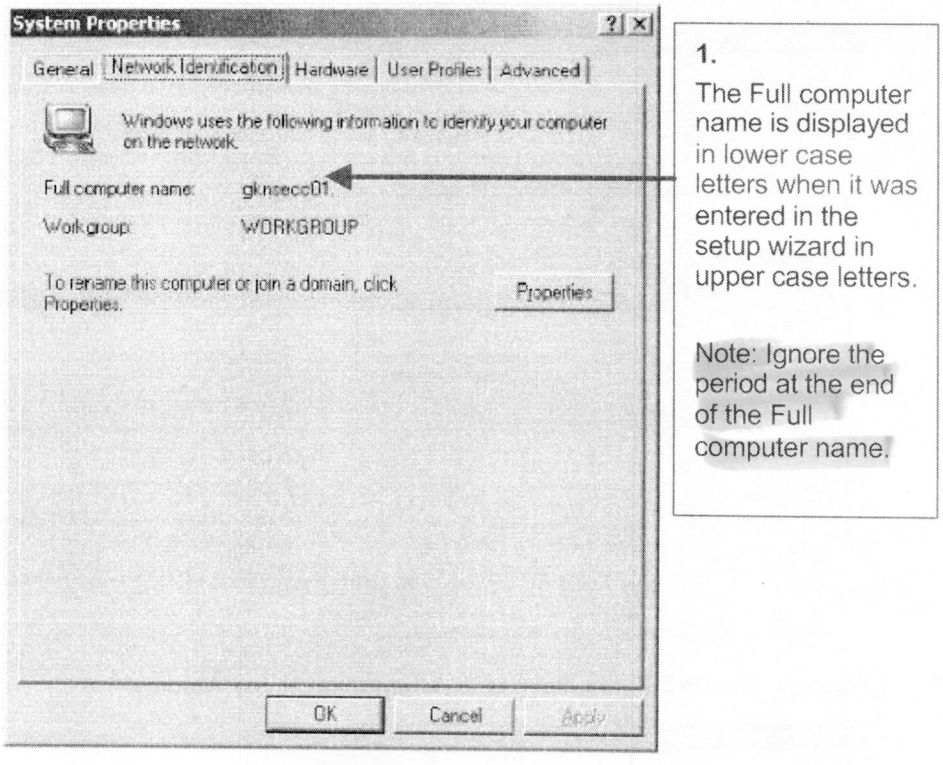
A mismatch of computer name and the DNS host name can occur after a fresh installation of the Windows 2000 Server operating system. For example, as you run the Windows 2000 Server Setup wizard, you enter the computer name as **GKNSECC01**. The setup wizard uses this entry to set both the computer name and the DNS host name. However, after the operating system installation is complete, you may find that the Computer name has been set to **gknsecc01** (all lower case letters) and the DNS host name set to **GKNSECC01** exactly as you entered the name. You must change the computer name prior to attempting to install the Symposium Express Call Center application software.

Notes



The computer name is located on the Network Identification tab of the System Properties window. To access this window, from the **Start** menu, click on **Settings** and then **Control Panel**. On the Control Panel, double-click on the **System** icon to open the System Properties window, and then click on the **Network Identification** tab.

Figure 1: The Network Identification Tab of the System Properties Window



Notes



The DNS host name is located on the DNS Suffix and NetBIOS Computer Name window. To get to this window, from the Network Identification tab, click on the **Properties** button. The Identification Changes window opens. Click on the **More** button on the Identification Changes window to open the DNS Suffix and NetBIOS Computer Name window.

Figure 2: The Identification Changes Window

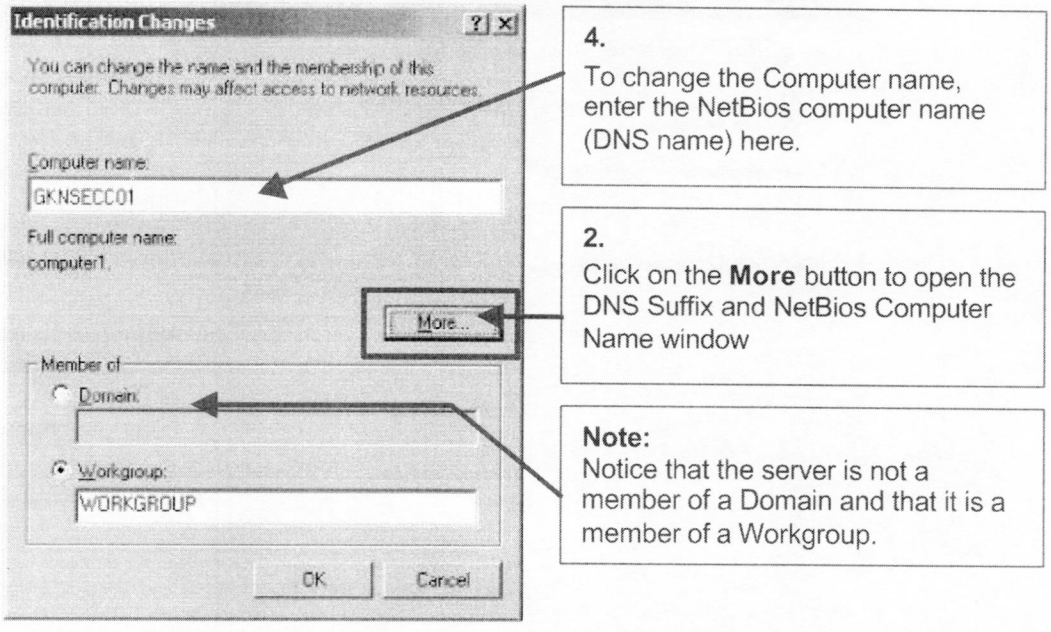
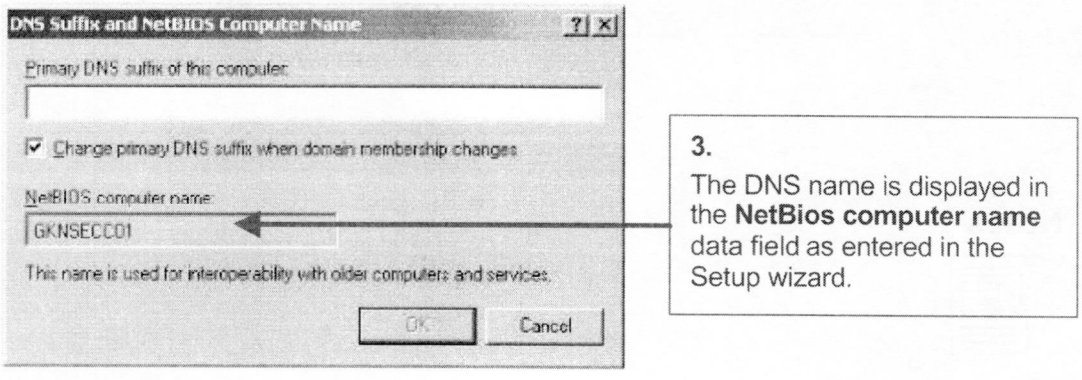


Figure 3: The DNS Suffix and NetBIOS Computer Name Window



Notes



Changing the Administrator Password



Caution: *After changing your password, make a record of it immediately, and store it in a secure location!*

To ensure the security of your server PC, change the Administrator password as soon as possible. The user name and password are case sensitive. When changing your password, the new password must use alphanumeric characters and be at least six to ten characters in length.

For this class, the default Administrator information is:

- User Name **Administrator**
- Password **abc123**

***Do Not Change the Passwords on Classroom or Lab Computers! ***

To change the Administrator password:

- Log on to the server as the Administrator
- Press the **Control**, **Alt**, and **Delete** keys on the keyboard
- Click on the **Change Password** button
- Enter the **current password** in the Old Password data box
- Enter the **new password** in the New Password data box
- Re-enter the **new password** in the Confirm New Password data box



Tip: *For strong security, use both uppercase and lowercase letters, numbers, and special characters from the keyboard, such as !, @, or # in your password. Do not use your name or a "common" word. Change your password every 45 days without repeating any of the last eight passwords used.*

Notes

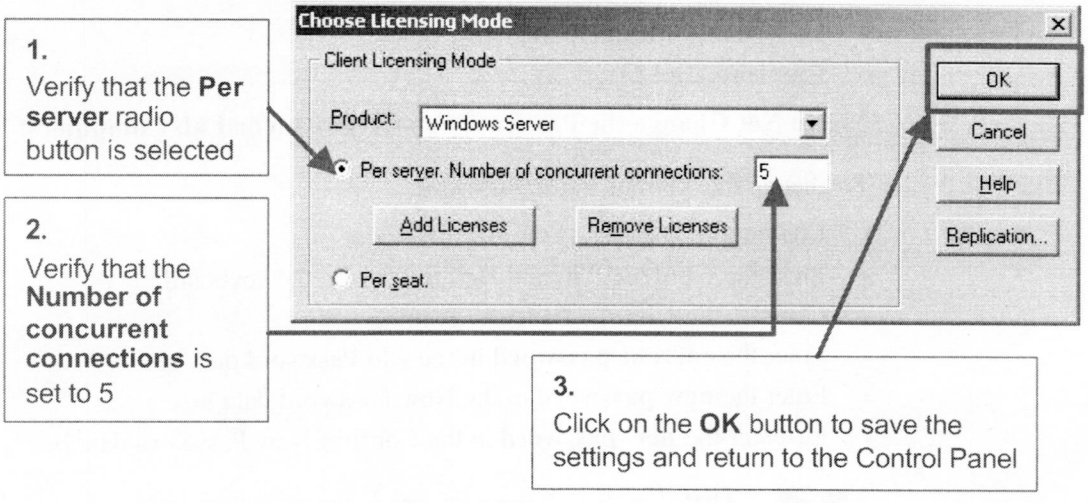


Checking the Windows 2000 Server Licensing Mode

Nortel Networks recommends that you use the Per Server licensing mode and have a minimum of five concurrent connections. This is the default setting and should already be set on your server PC if Windows 2000 Server was installed correctly.

You must verify the licensing mode on the Choose Licensing Mode window. To access this window, from the **Start** menu, click on **Settings** and then **Control Panel**. On the Control Panel, double-click on the **Licensing** icon to open the Choose Licensing Mode window.

Figure 4: The Choose Licensing Mode Window



Windows 2000 Server Services

Simple Network Management Protocol (SNMP) must be installed on your server to allow remote monitoring. This service does not install by default. You must select the SNMP installation when installing or configuring Windows 2000.

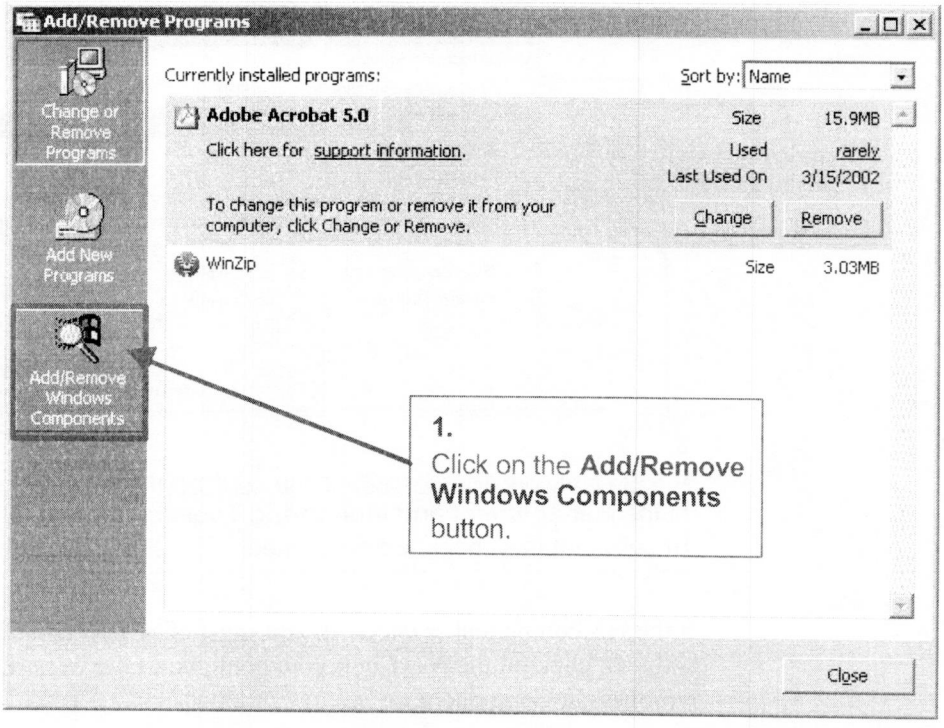
Internet Information Service (IIS) must not be installed on your server because it will degrade the server's performance. This service does install by default when installing Windows 2000. You must ensure that it is removed when installing or configuring Windows 2000.

Notes



Use the Windows Components wizard to verify that SNMP is installed and that IIS is not installed. To launch the wizard, from the **Start** menu, click on **Settings** and then **Control Panel**. On the Control Panel, double-click on the **Add/Remove Programs** icon to open the Add/Remove Programs window. Next, click on the **Add/Remove Windows Components** button to launch the wizard.

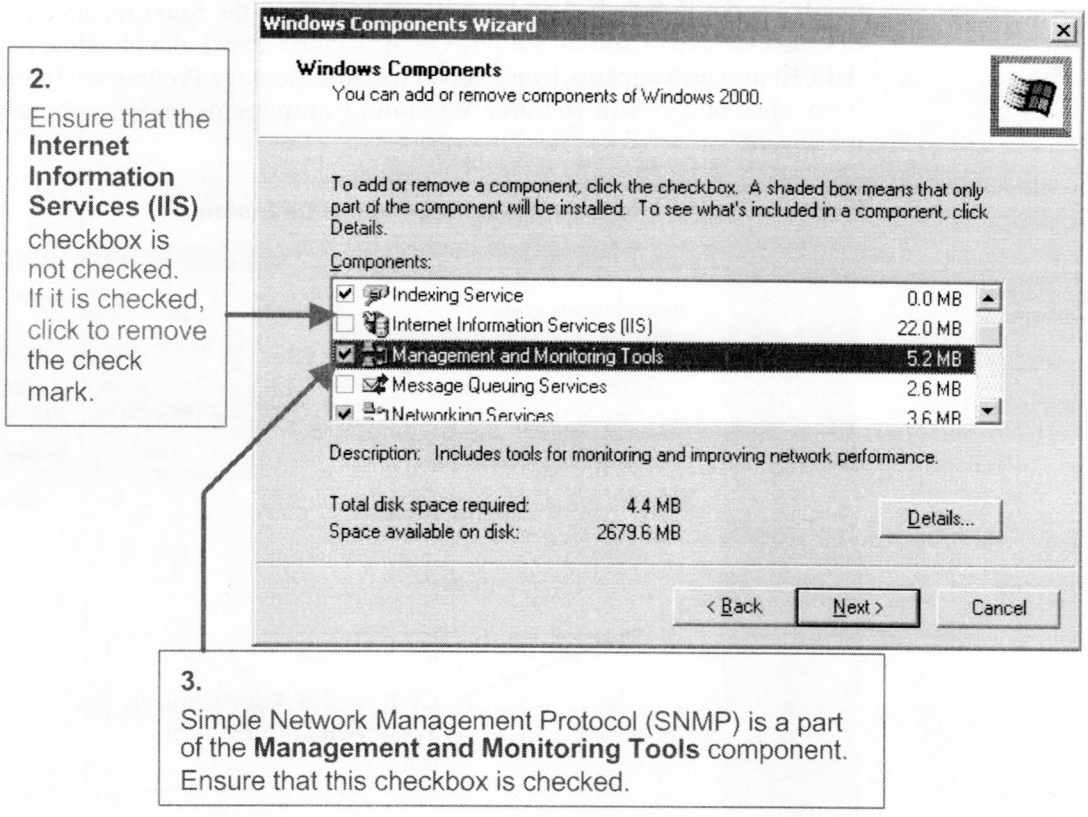
Figure 5: The Add/Remove Windows Components Button



Notes



Figure 6: The Windows Components Wizard



If the **IIS** component is checked, you must click to remove the check mark, and then click on the **Next** button to continue in the wizard. The wizard removes the component.

If the Management and Monitoring Tools component is not checked, it means that it has not been installed. Click on the **Management and Monitoring Tools** checkbox, and then click on the **Next** button to continue in the wizard. You are prompted to insert the Windows 2000 Server CD in the CD-ROM drive and then click on the **Next** button to continue. The wizard installs the missing component.

Notes





Practice

Setting Up the Server Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers on the Answers to Practice pages that follow this practice.

Select Answer

1. When configuring the Windows 2000 Server operating system for Symposium Express Call Center, what Licensing mode does Nortel Networks recommend?

   a. Per seat licensing mode with no concurrent connections

   b. Per seat licensing mode with a minimum of 5 concurrent connections

   c. Per server licensing mode with a minimum of 5 concurrent connections

   d. Per server licensing mode with a minimum of 2 concurrent connections (CLAN & ELAN)

Select Answer

2. When configuring the Windows 2000 Server operating system for use with your Symposium Express Call Center PVI server, you must ensure that the SNMP service is not installed and that the IIS service is installed.

   a. True

   b. False

reset

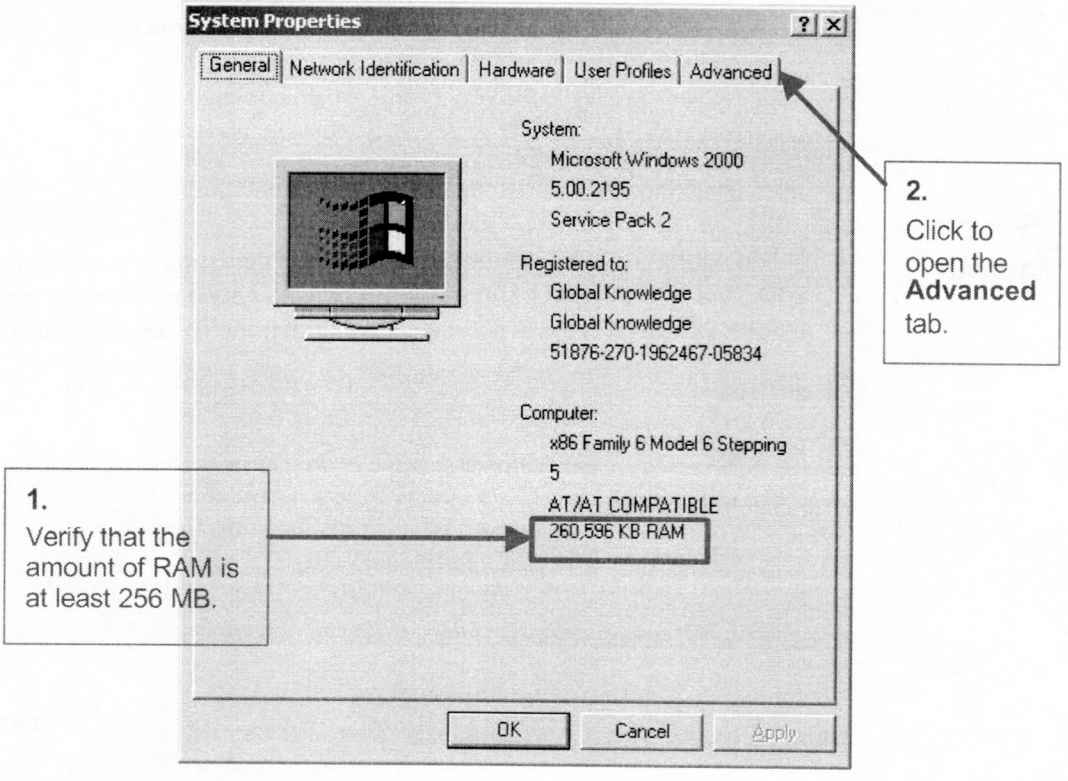
Virtual Memory

The Symposium Express Call Center PVI server requires a minimum of 256 MB of RAM memory. You must verify the size of the paging file in the server PC's virtual memory settings prior to installing the application software. The minimum size of the paging file should be one and a half times the size of the RAM memory. For example, if the server has 256 MB of RAM, then the virtual memory should be 1.5 times 256 or 384 MB. Nortel Networks recommends that you set both the initial size and the maximum size to this value to minimize performance degradation. If the virtual memory is smaller, increase it to this amount. The paging file should be on the C: drive.

Verify RAM

You must verify the virtual memory settings on the Performance Options window. To access this window, from the **Start** menu, click on **Settings** and then **Control Panel** to open the Control Panel window. On the Control Panel, double-click on the **System** icon to open the System Properties window. On the General tab of the System Properties window, note the value given for the RAM size and verify that it meets the minimum requirements listed above.

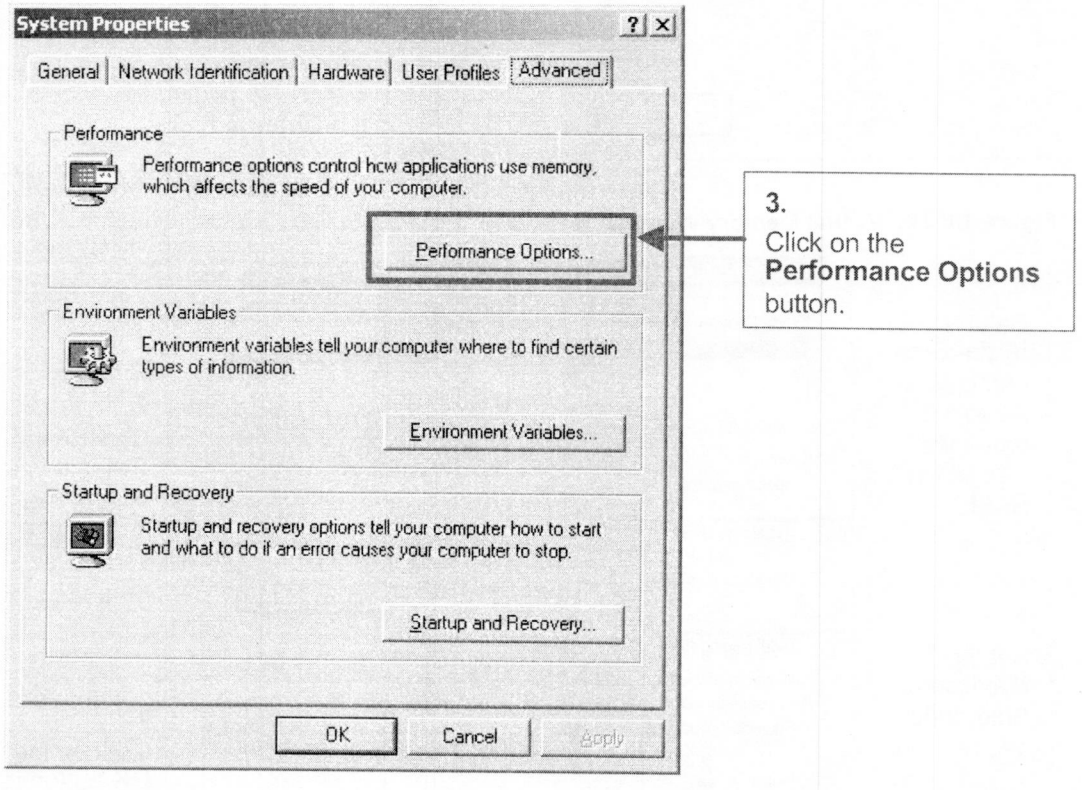
Figure 7: The General tab of the System Properties Window



Verify the Virtual Memory

Click on the **Advanced** tab and then click on the **Performance Options** button to open the Performance Options window. Click on the **Change** button to view the virtual memory settings. Verify that the paging file minimum and maximum size are both 1.5 times the value given for the RAM size on the General tab of the System Properties window. Make changes to the virtual memory settings as required.

Figure 8: The Advanced **Tab of the System Properties Window**



Notes



Figure 9: Performance Options Window

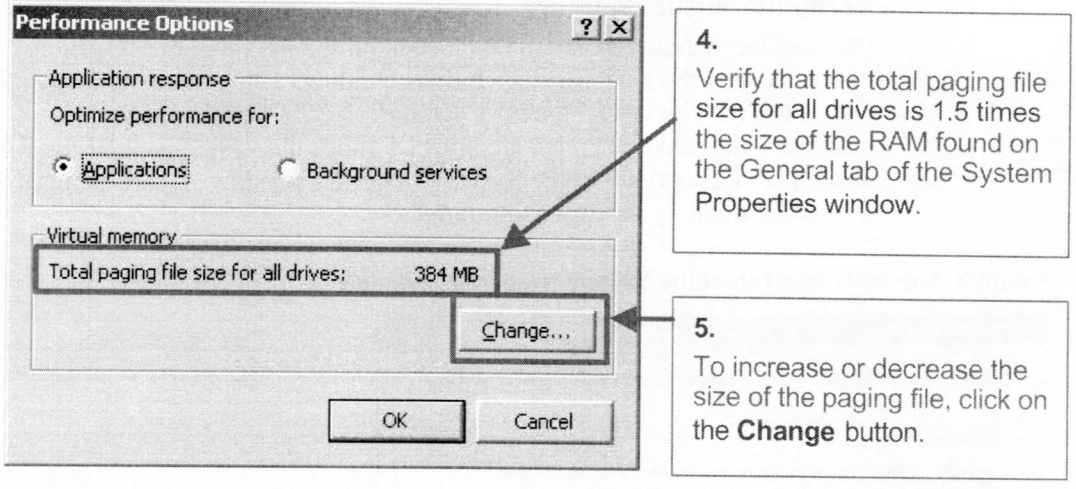
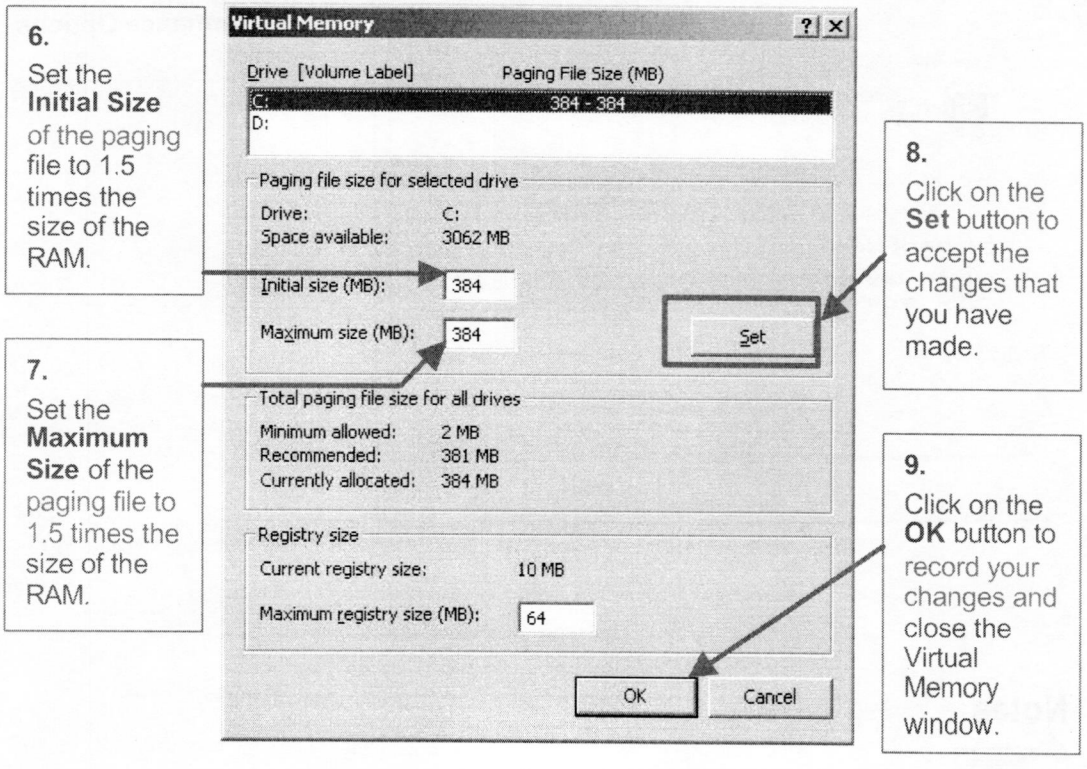


Figure 10: The Virtual Memory Window



Notes



Date Time and Time Zone

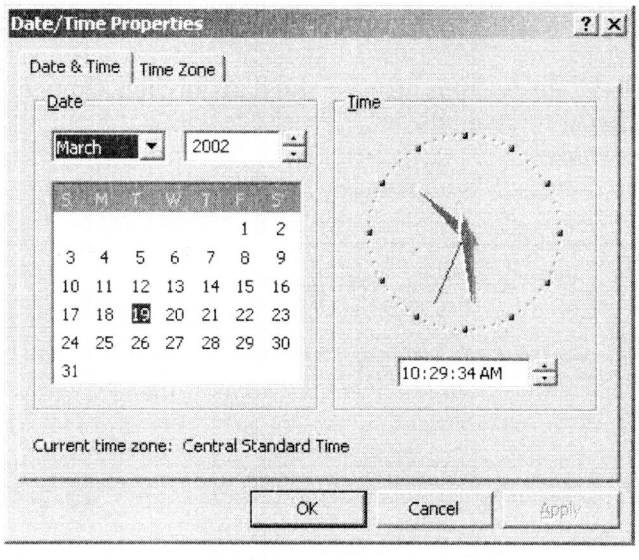
Setting the server's date and time will help you analyze the event logs that are created during the Symposium Express Call Center application software installation. Each event has a date and time stamp of when the event occurred. You can review these events and determine exactly when a critical event happened during the installation process.

View and Change the Date and Time

Follow these steps to view and make necessary changes to the server date and time. From the **Start** menu, click on **Settings** and then **Control Panel** to open the Control Panel window. On the Control Panel, double-click on the **Date/Time** icon. The Date/Time window opens.

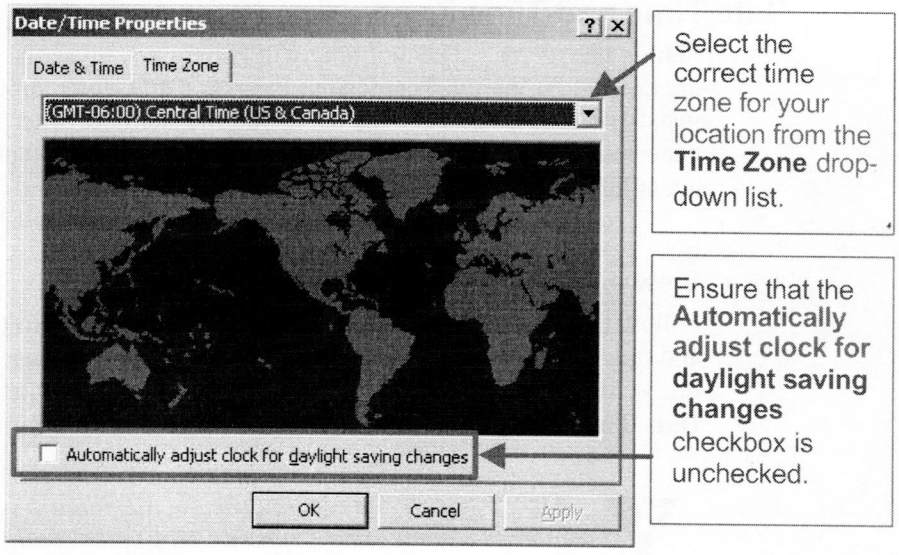
Tip: *For call centers that use the Meridian 1 switch, after the Symposium Express Call Center is fully operational and connected to the switch, the switch controls the date and time settings.*

Figure 11: The Date/Time Window



Notes

Figure 12: The Time Zone Tab of the Date/Time Window



Set the Time Zone for the Server

To verify and change the time zone and daylight savings time settings, from the Date/Time window, click to open the **Time Zone** tab. Select the correct time zone for your customer's location from the **Time Zone** drop-down list. The world graphic will change so that the time zone selected is in the center of the map. For the Meridian 1 and CSE 1000 switch, ensure that the **Automatically adjust clock for daylight savings changes** checkbox is unchecked.

Notes



TCP/IP for the ELAN and CLAN

Two network interface cards (NICs) are required in the Symposium Express Call Center PVI server. One NIC card connects to the ELAN and the other to the CLAN. For each NIC card, you must configure the TCP/IP network parameters. These parameters include the IP address, subnet mask, and the default gateway. If the network uses Dynamic Host Configuration Protocol (DHCP) you must also configure the DNS and WINS options. Consult with the network administrator at your customer's site for all TCP/IP network parameters.



Tip: *You must configure the TCP/IP network parameters for both the CLAN NIC card and the ELAN NIC card.*



Caution: *You must remove any additional network connections on the Network and Dial-up Connections window other than the required CLAN NIC card connection, ELAN NIC card connection, and the Dial-up connection for remote access.*

To set the TCP/IP network parameters, from the **Start** menu, click on **Settings** and then **Control Panel** to open the Control Panel window. On the Control Panel, double-click on the **Network and Dial-up Connections** icon. Icons for all network and dial-up connections are displayed. Right-click on the **CLAN** (or ELAN) connection icon and then click **Properties**. Click on **Internet Protocol (TCP/IP)** and then click **Properties**. Enter the TCP/IP network parameters for the NIC card on the **General** tab. Click on the **Advanced** button to configure the DNS and WINS.

Notes



Figure 13: The Network and Dial-up Connections Window

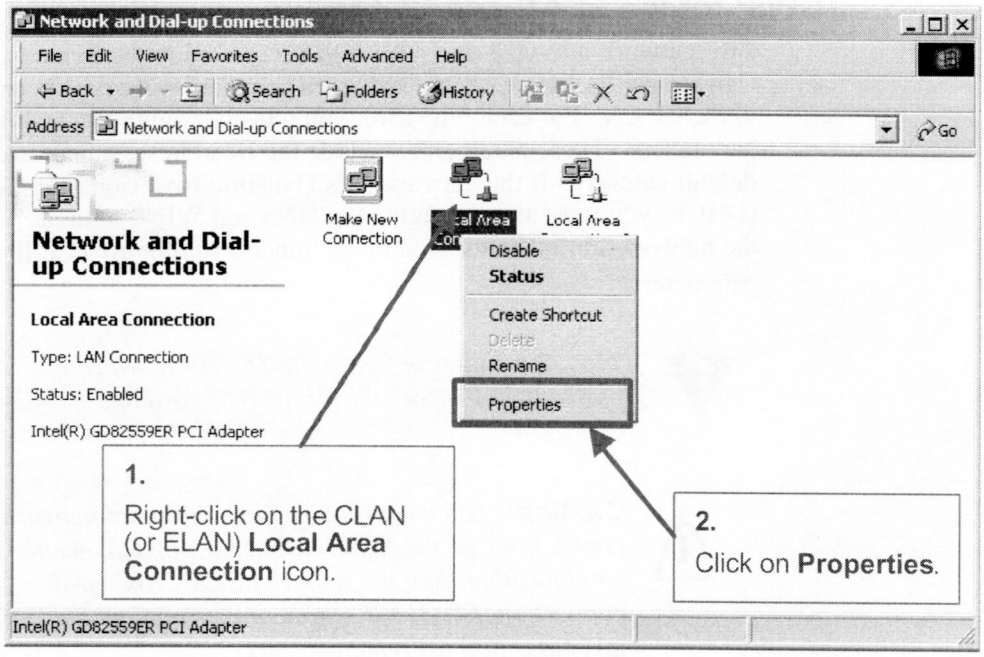


Figure 14: The Local Area Connections Properties Window

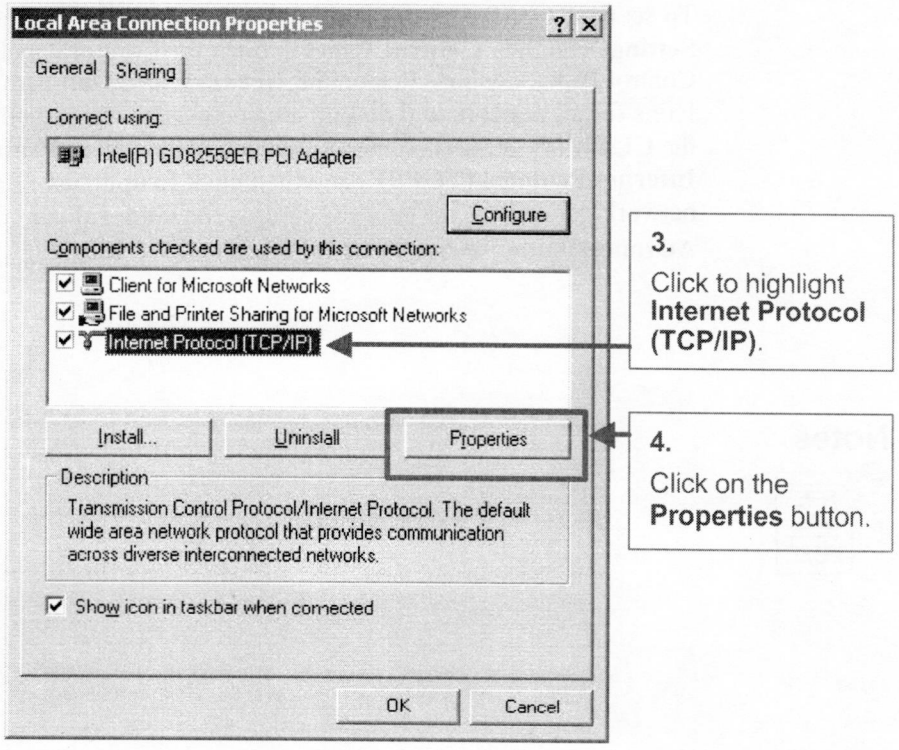
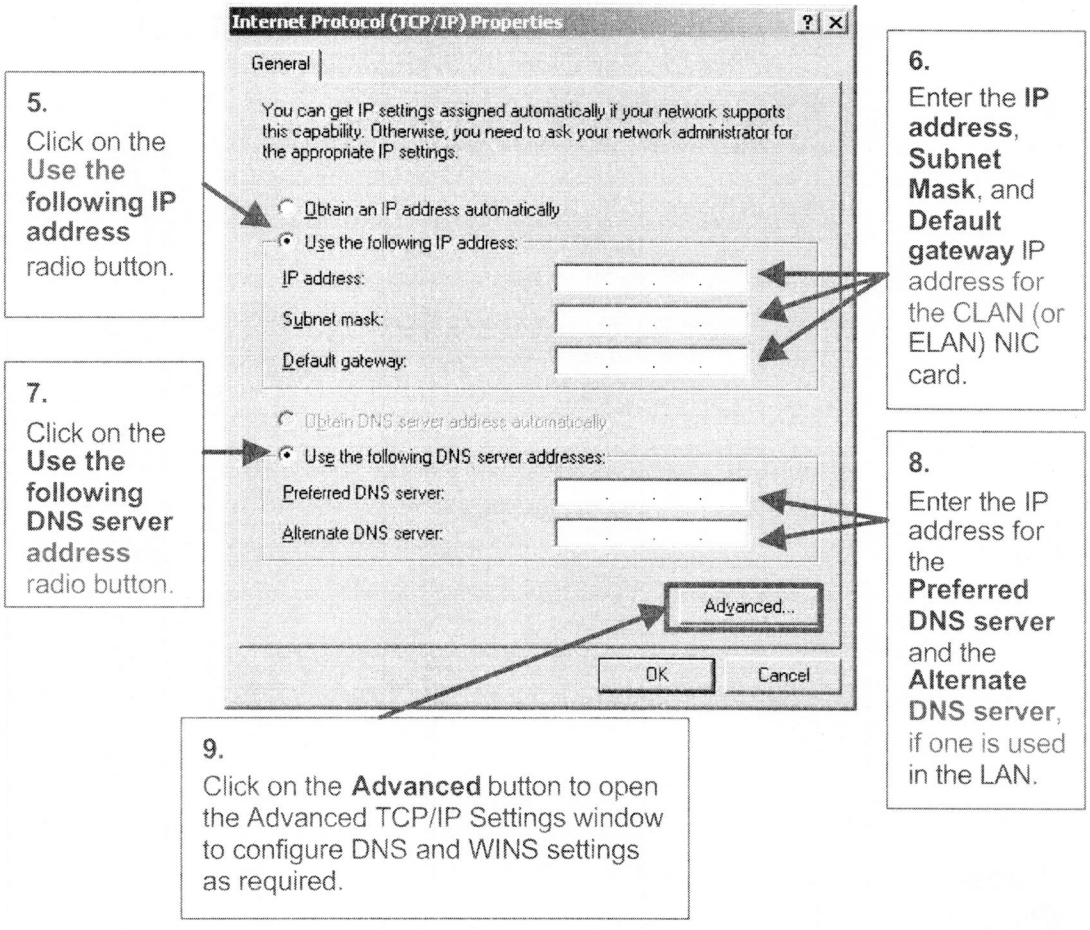


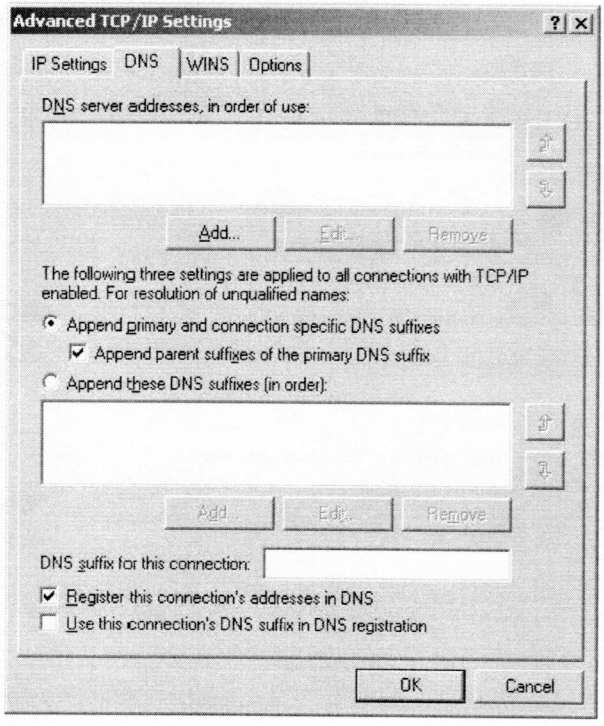
Figure 15: The Internet Protocol (TCP/IP) Properties Window



Notes



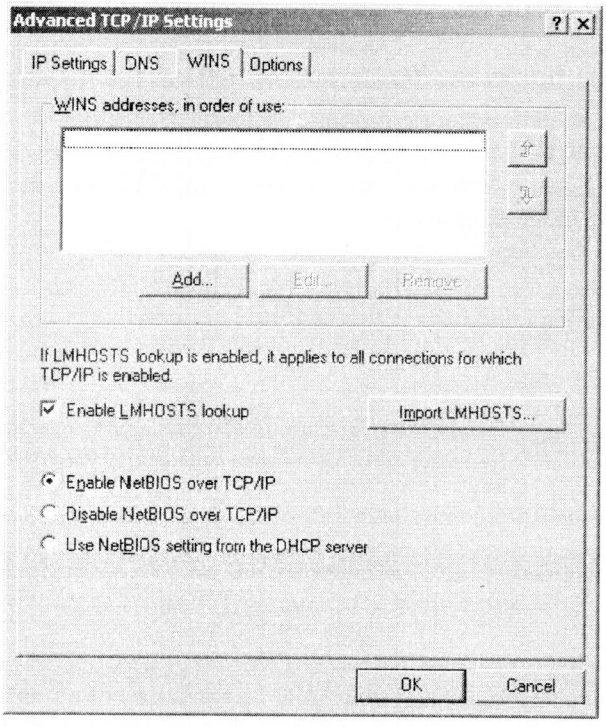
Figure 16: The DNS Tab on the Advanced TCP/IP Settings Window



Notes



Figure 17: The WINS Tab on the Advanced TCP/IP Settings Window



Tip: *After you have configured the TCP/IP network parameters for the CLAN, go back to the Network and Dial-up Connections window in Figure 16 and configure the network settings for the ELAN.*

Notes

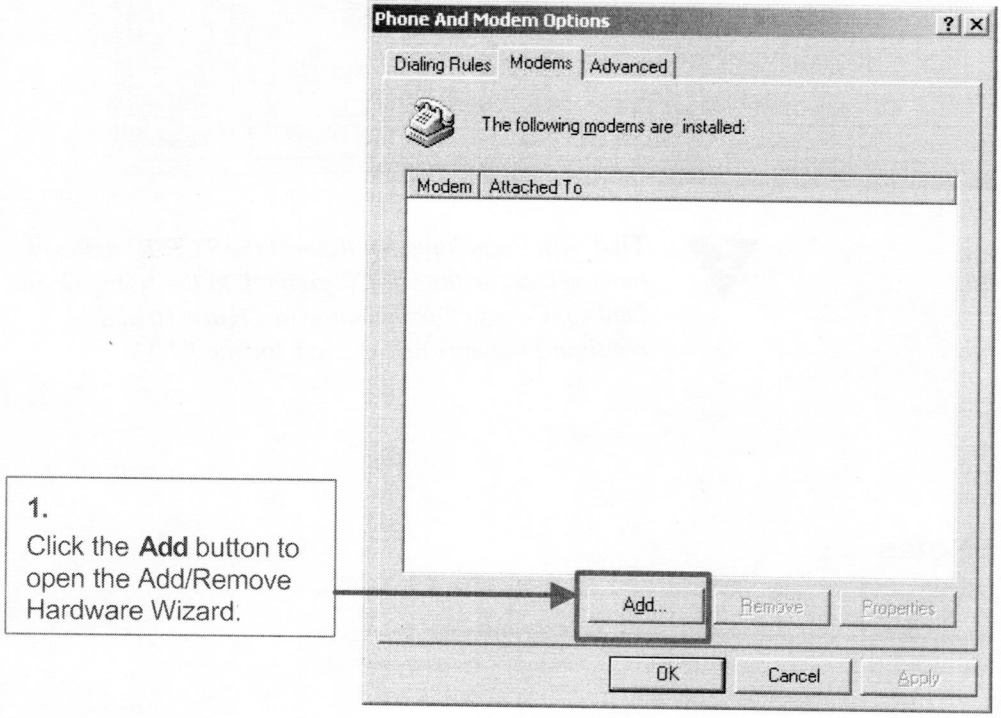
Remote Access

Configure the Modem Connection for Remote Access

A modem is connected to the COM1 port of the Symposium Express Call Center PVI server to provide dial-up access for remote support. You will use the Add/Remove Hardware wizard to configure a direct serial connection for the modem hardware.

To access the Add/Remove Hardware wizard, from the **Start** menu, click on **Settings** and then **Control Panel** to open the Control Panel window. On the Control Panel, double-click on the **Phone and Modem Options** icon. On the Phone And Modem Options window, click on the **Modems** tab and then click the **Add** button to open the wizard. The wizard provides instructions to detect the modem and install the appropriate driver software.

Figure 18: The Modems Tab of the Phone And Modems Options Window



Notes



Figure 19: Do You Want Windows to Detect Your Modem? Add/Remove Hardware Wizard

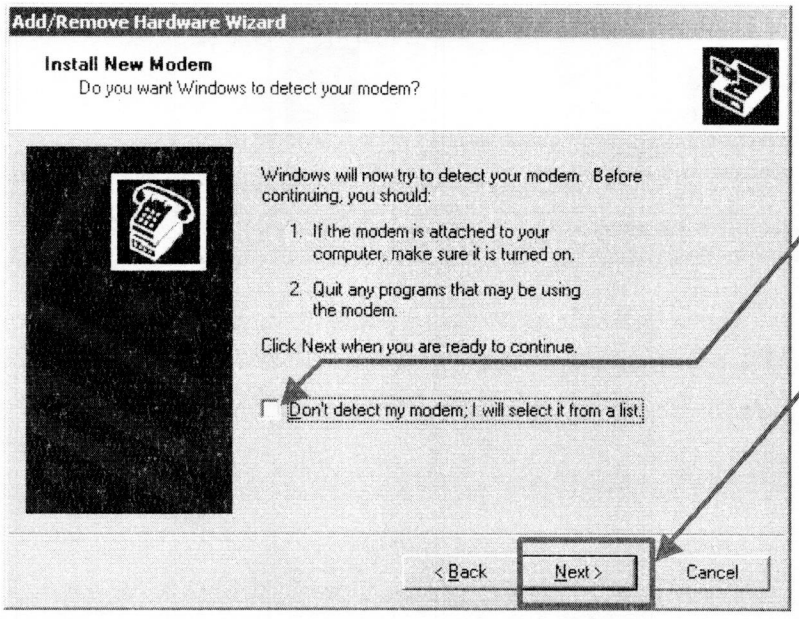
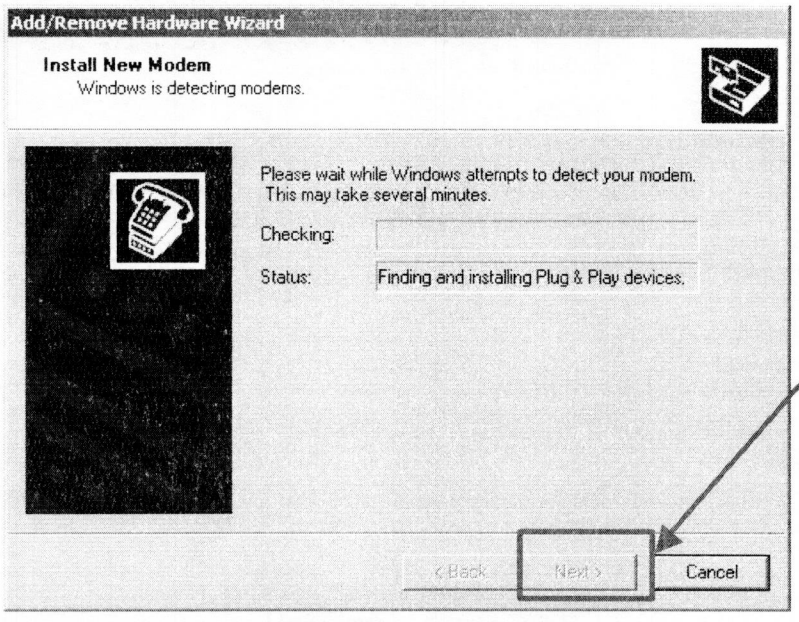


Figure 20: Windows is Detecting Modems. Add/Remove Hardware Wizard



Notes



Figure 21: Modem Installation is finished. Add/Remove Hardware Wizard

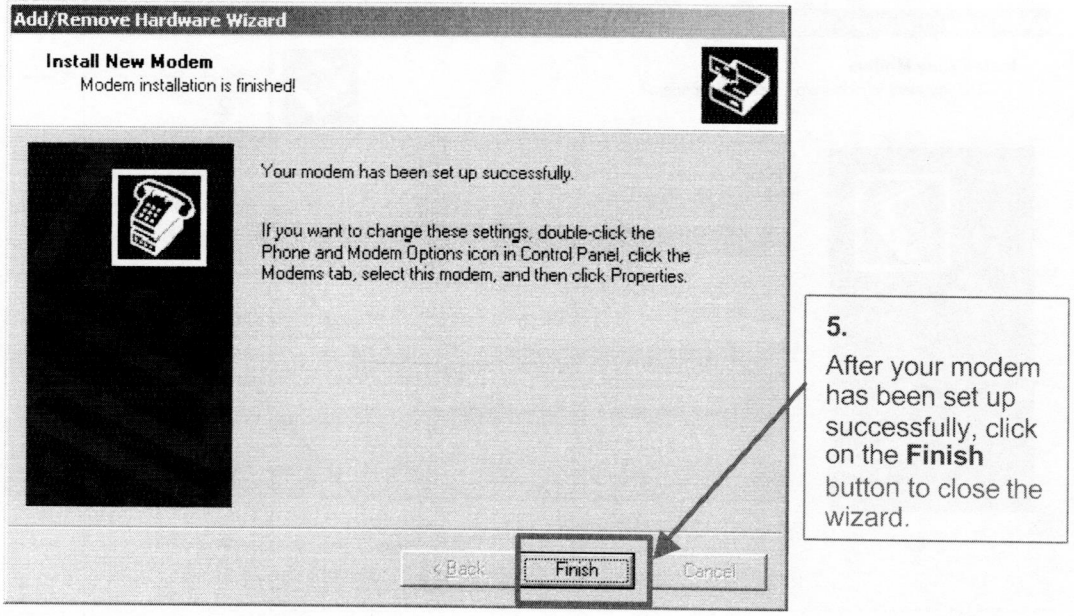
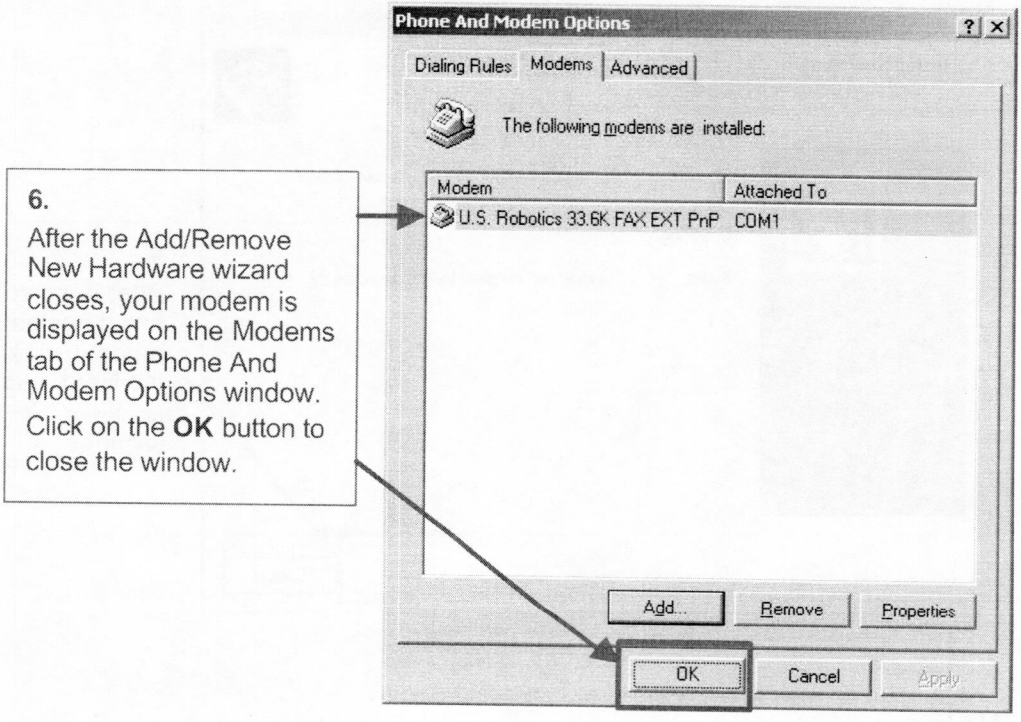


Figure 22: The Modems Tab of the Phone And Modems Options Window with New Modem

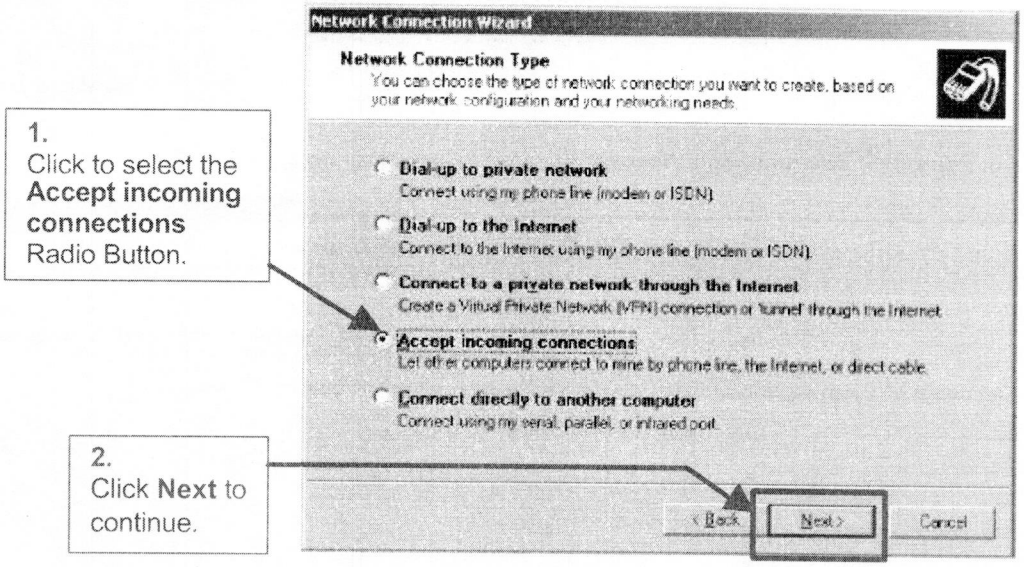


Configure the Operating System for Remote Access

To allow Nortel Networks remote support personnel access to your server over the modem connection, you must configure remote access on your server. Remote access is configured on the Network Connection Wizard.

To access the Network Connection Wizard, from the **Start** menu, click on **Settings** and then **Control Panel** to open the Control Panel window. On the Control Panel, double-click on the **Network and Dial-up Connections** icon. On the Network and Dial-up Connections window, double-click on **Make New Connection**. The Network Connection Wizard Welcome window opens. Click on **Next**. The Network Connection Type window of the Network Connection Wizard opens.

Figure 23: The Network Connection Type Window



Notes



Figure 24: The Devices for Incoming Connections Window

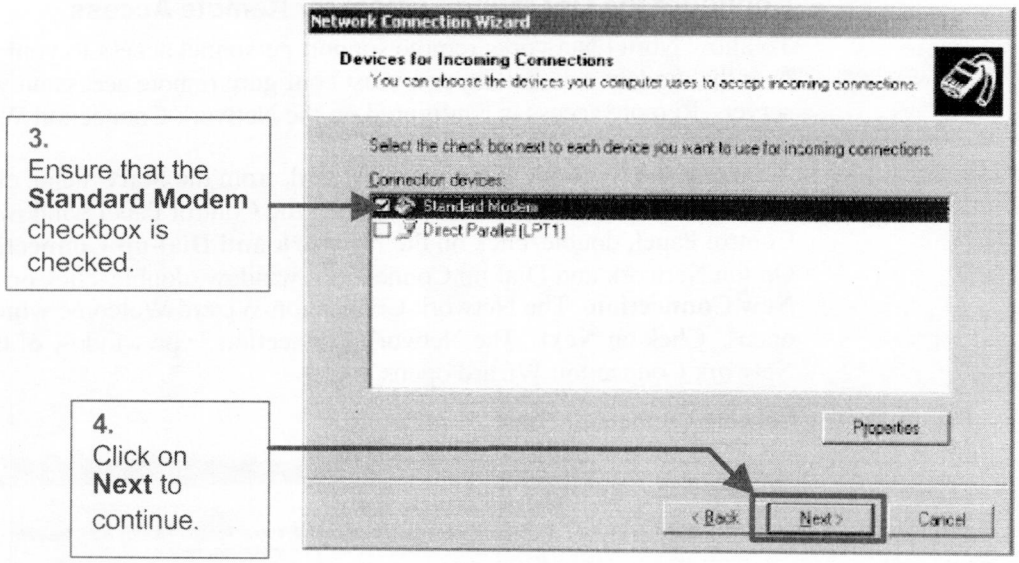
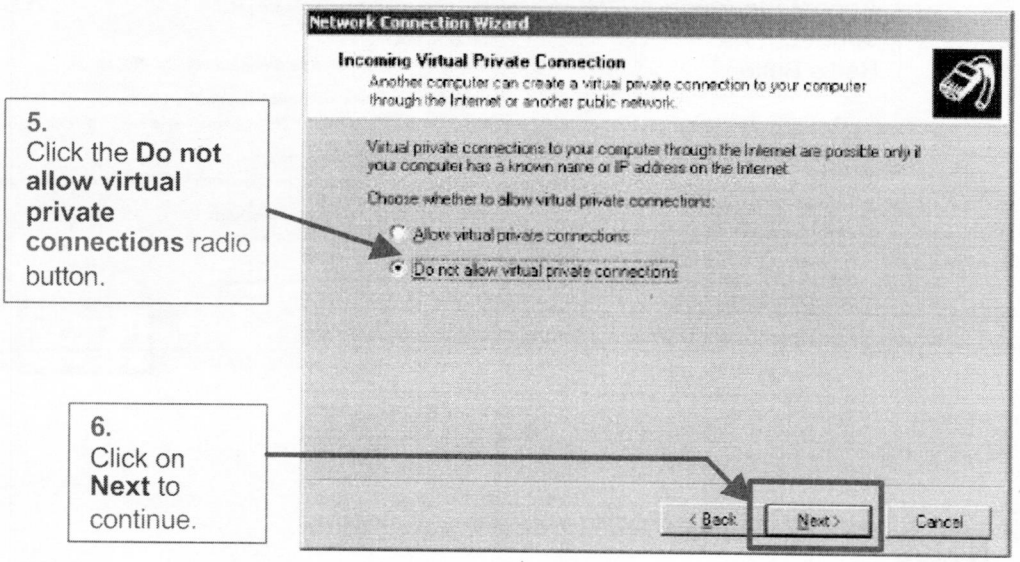


Figure 25: The Incoming Virtual Private Connection Window



Notes



Figure 26: The Allowed Users Window

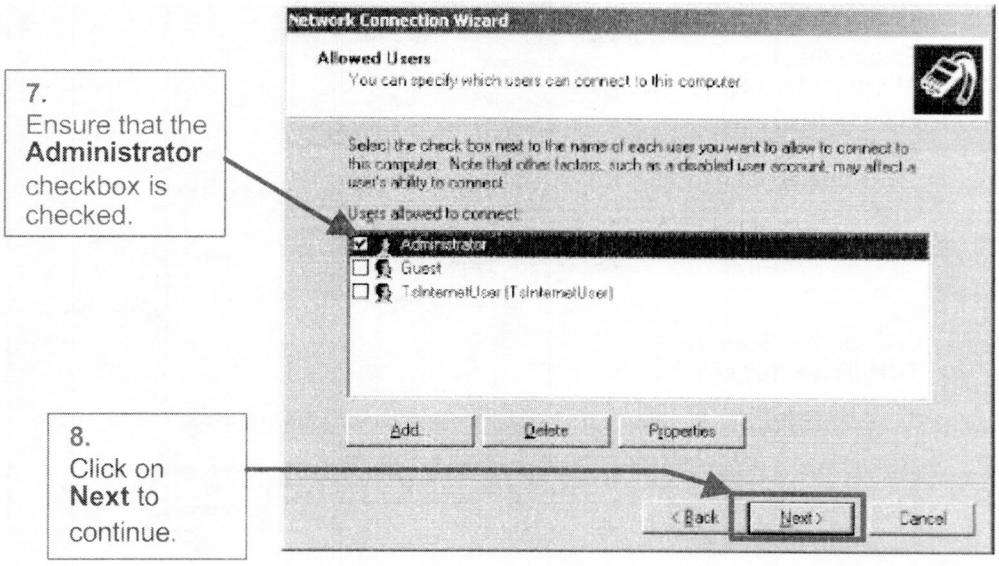
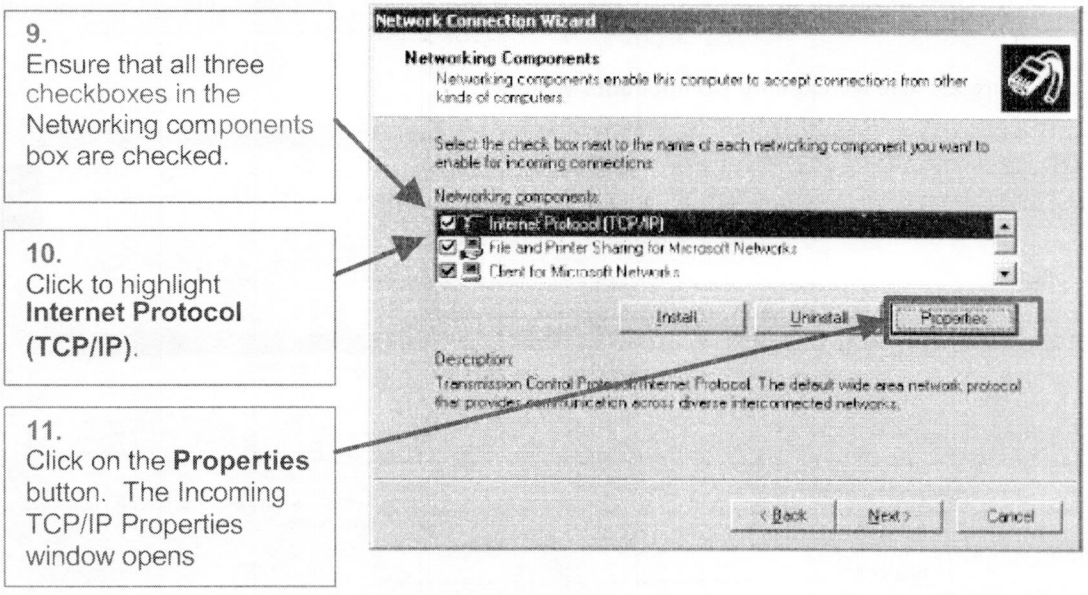


Figure 27: The Networking Components Window



Notes



Figure 28: The Incoming TCP/IP Properties Window

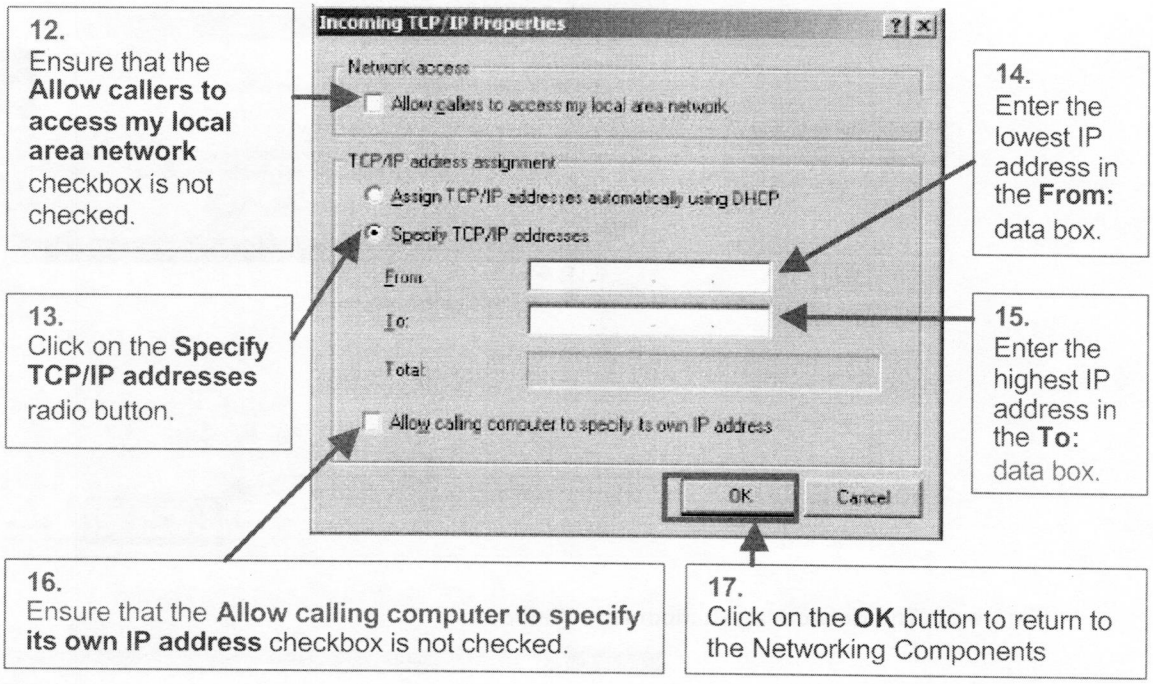
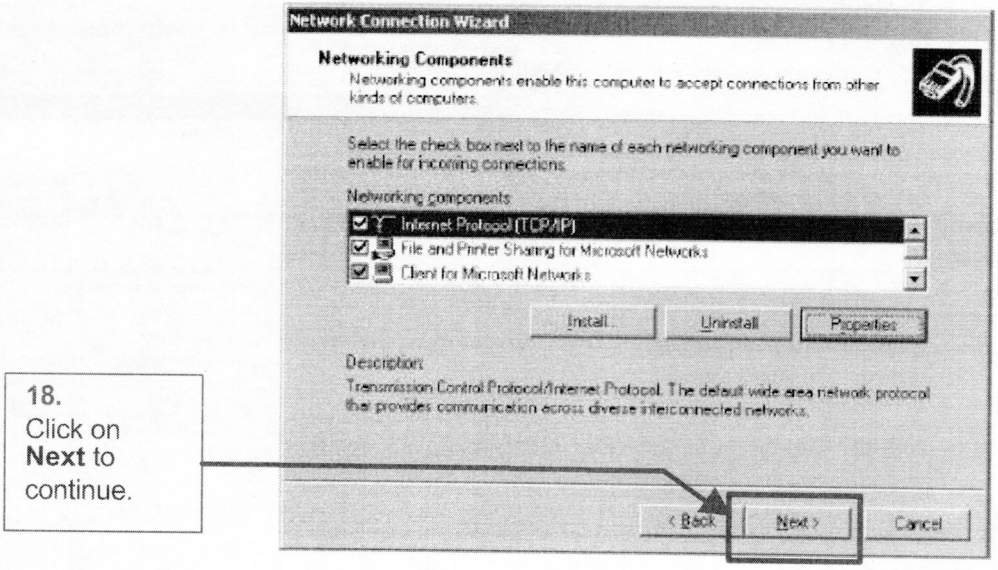


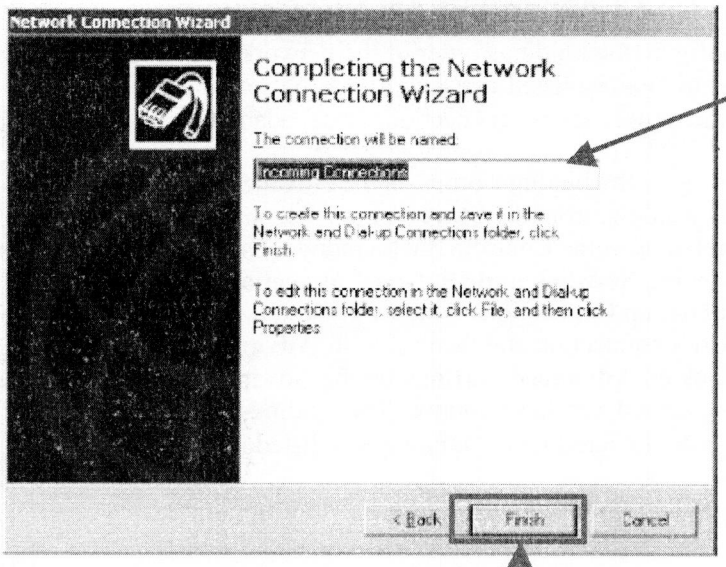
Figure 29: The Networking Components Window



Notes



Figure 30: The Completing the Network Connection Window



19.
Enter the name of the incoming connection in the **The connection will be named** data field.

Note: This name will appear in the Network and Dial-up Connections folder.

20.
Click on the **Finish** button to close the wizard.

Notes

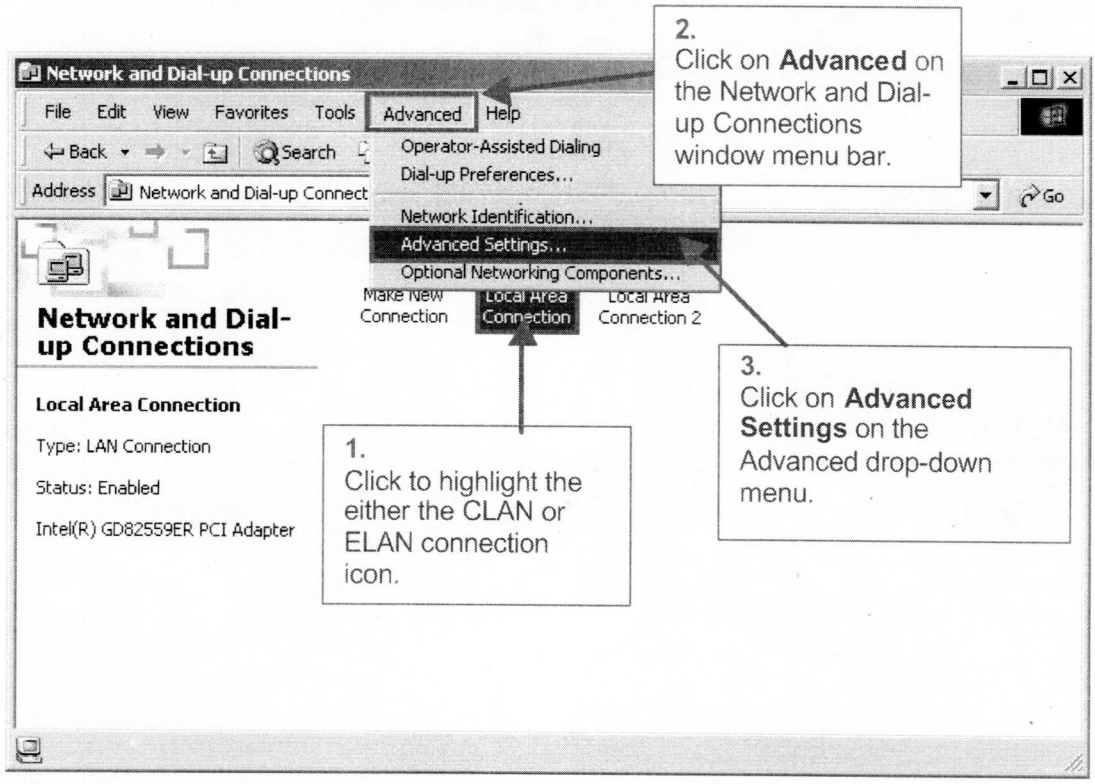


Bindings Order for CLAN and ELAN NIC Cards

You must configure the bindings order of the network interface cards. The CLAN NIC card must be listed first, the ELAN NIC card must be listed second, and the remote access connection virtual adapter must be listed third.

View and configure the bindings order on the Advanced Settings window. To access this window, from the **Start** menu, click on **Settings** and then **Control Panel** to open the Control Panel window. On the Control Panel, double-click on the **Network and Dial-up Connections** icon. On the Network and Dial-up Connections window click to highlight either the **CLAN** or **ELAN** connection and then click on **Advanced** on the window menu bar. Click on **Advanced Settings** on the Advanced drop-down menu to open the Advanced Settings window. The bindings are listed in the Connections box. Ensure that the bindings are listed in the correct order.

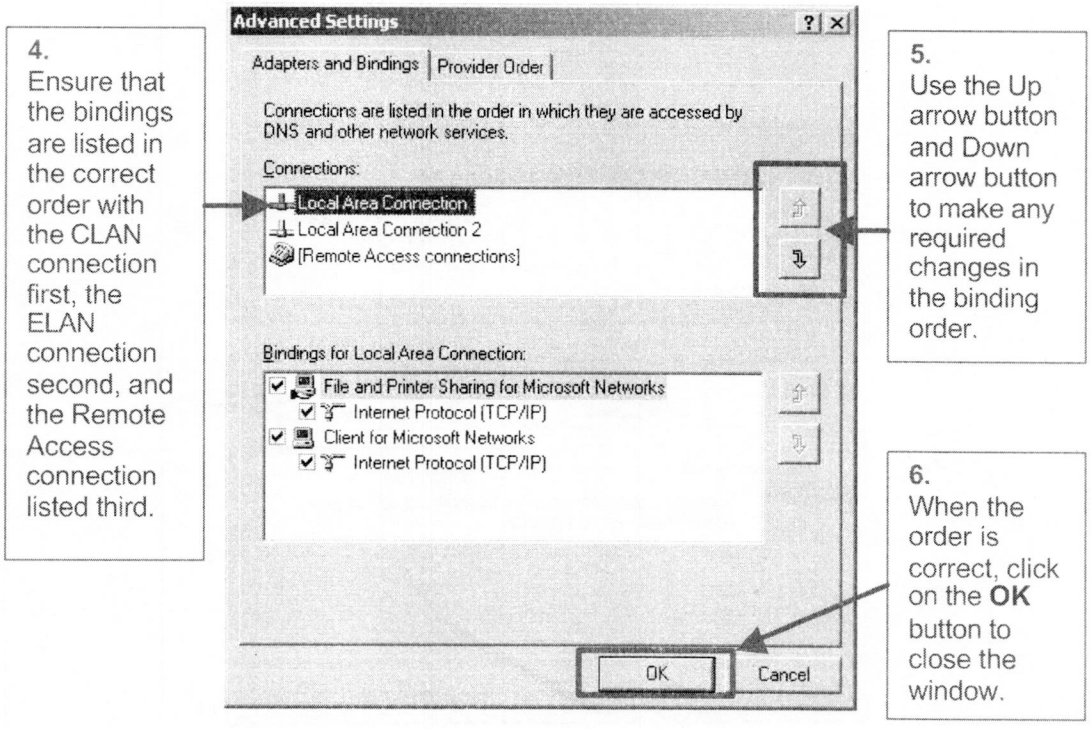
Figure 31: The Network and Dial-up Connections Window



Notes



Figure 32: The Advanced Settings Window



Serial Port Configuration

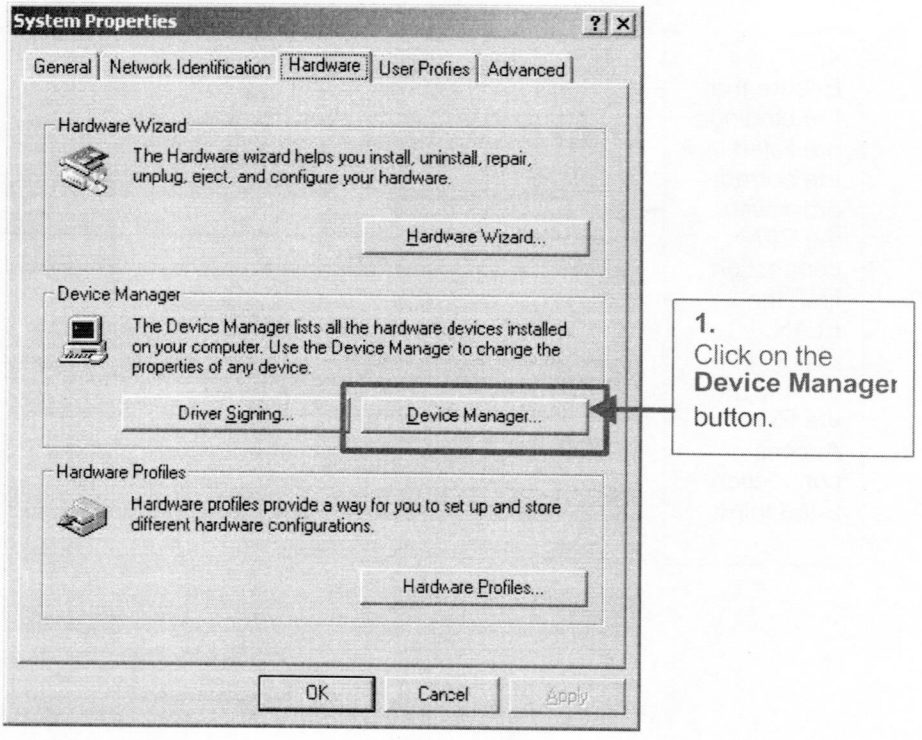
The Symposium Express Call Center PVI platform requires several serial ports. The COM1 port connects to the modem for remote access to the server for remote support. The COM2 port is used for the ACCESS link to the Meridian Mail system if one is used. An additional serial port can be configured if your installation will use a smart Uninterruptible Power Supply (UPS) that requires a serial port connection to the server PC. Use the Windows Device Manager to check the serial port configuration.

To open the Windows Device Manager, from the **Start** menu, click on **Settings** and then **Control Panel** to open the Control Panel window. On the Control Panel, double-click on the **System** icon to open the System Properties window. Click to open the **Hardware** tab and click on the **Device Manager** button. The Windows Device Manager opens.

Notes



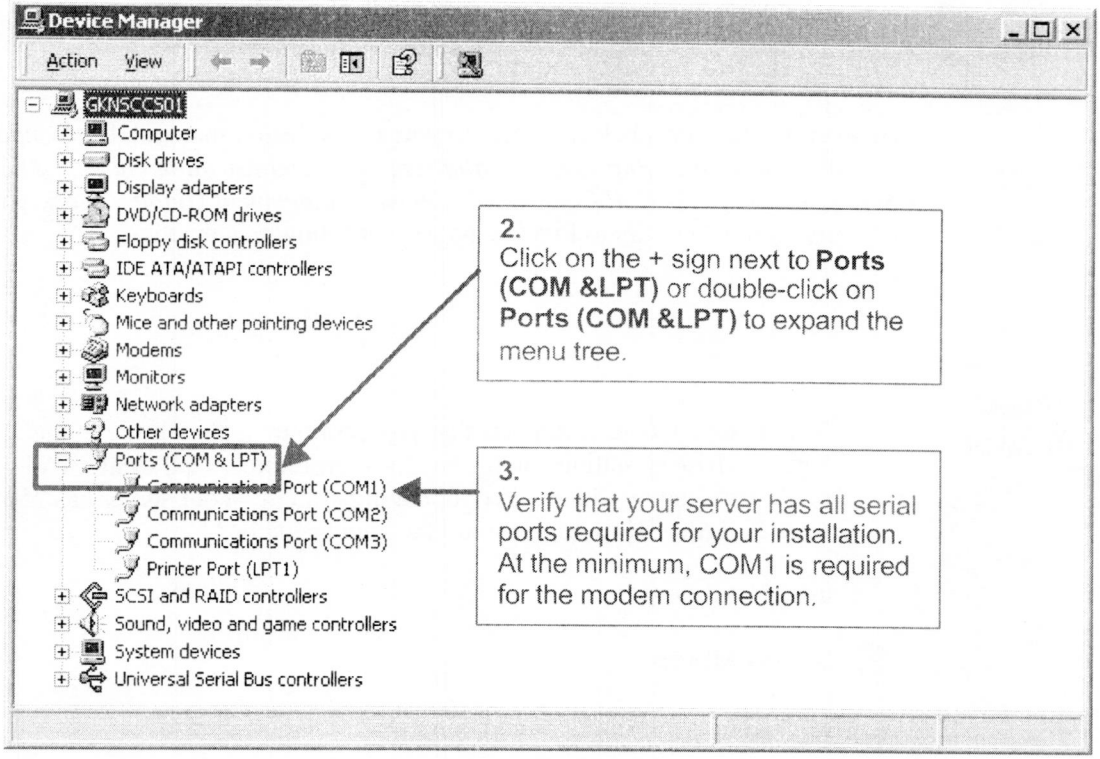
Figure 33: The Hardware Tab of the System Properties Window



Notes



Figure 34 The Windows Device Manager



If a required port is not displayed, you must go to the server's BIOS and correct the address of the missing port.

Notes



Practice

Setting Up the Server Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers on the Answers to Practice pages that follow this practice.

Select Answer

3. Nortel Networks recommends that you configure a paging file in the Virtual Memory settings on the Symposium Express Call Center PVI platform Windows 2000 server operating system. Your server has 256 Mbytes RAM. How large should the paging file be?

- a. 256 Mbytes
- b. 384 Mbytes
- c. 512 Mbytes
- d. 768 Mbytes

Select Answer

4. When installing Symposium Express Call Center on the PVI server, which serial port is reserved for the modem connection?

- a. COM1
- b. COM2
- c. COM3
- d. USB port

reset

Disk Partitioning

The Windows 2000 Server operating system must be installed on the C: drive of your server. The file type must be NTFS and the partition size must be a minimum of 2 GB. The recommended partition size is 4 GB. Disk partitioning requirements are covered in detail in the lesson "Customer-Supplied Equipment" and under "Drive partitioning for the server PC" in the "Customer-supplied equipment and data requirements" section of the "Getting started" chapter in the *Symposium Express Call Center Planning, Installation, and Administration Guide*.

You can view and modify the disk partitioning on the Computer Management window. To open the Computer Management window, from the **Start** menu, click on **Programs**> **Administrative Tools**> **Computer Management**.

Figure 35: Navigating to Computer Management from the Start Menu

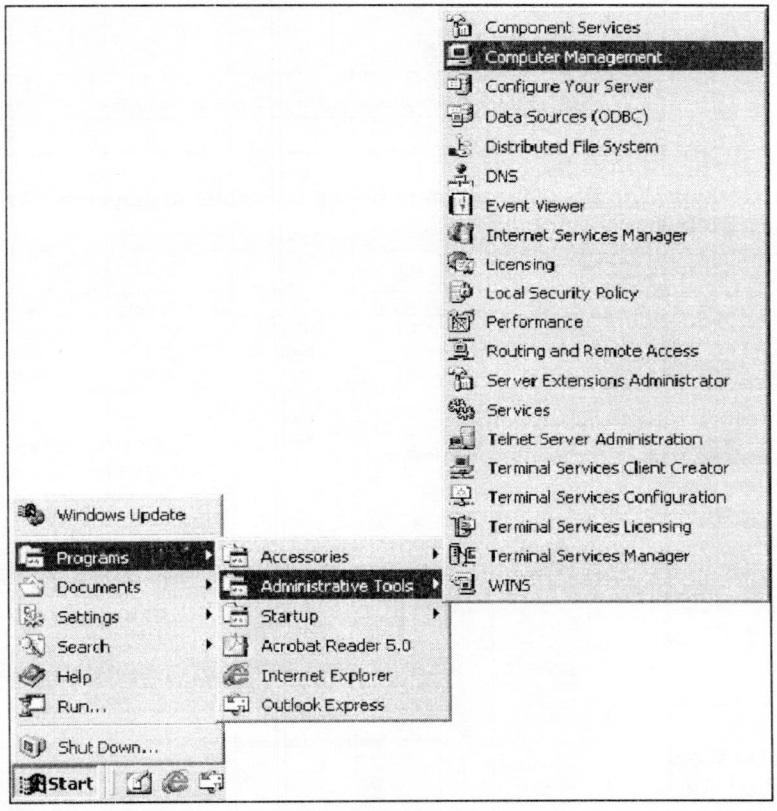


Figure 36: Disk Management on the Computer Management Window

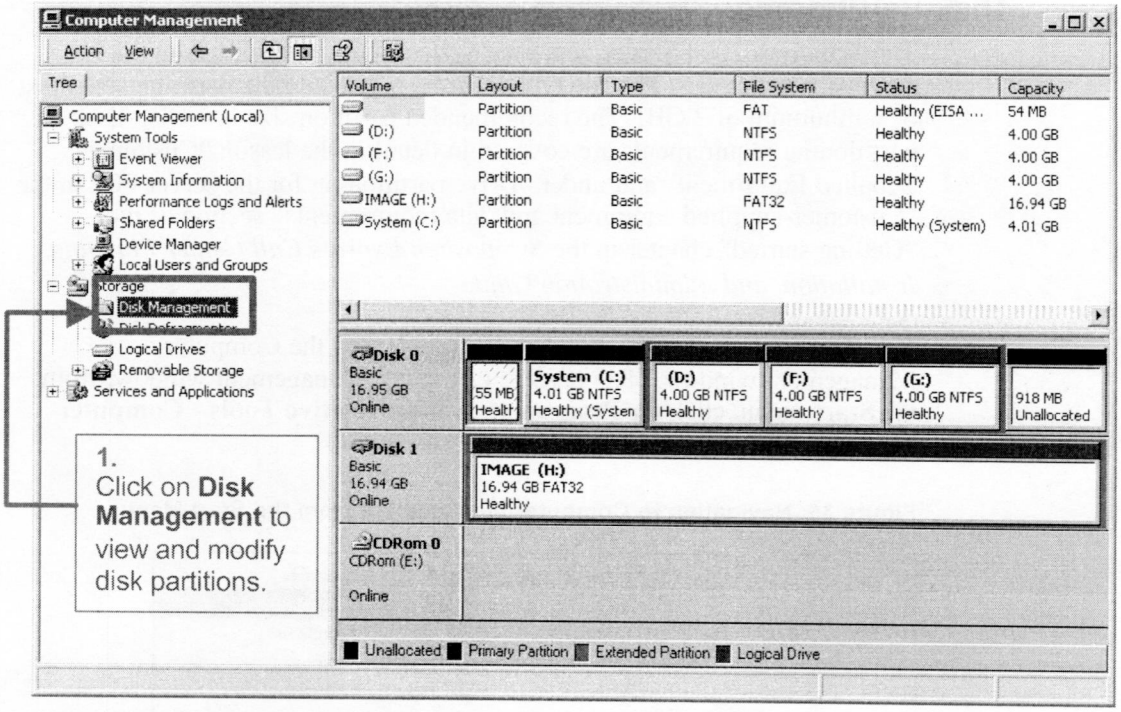
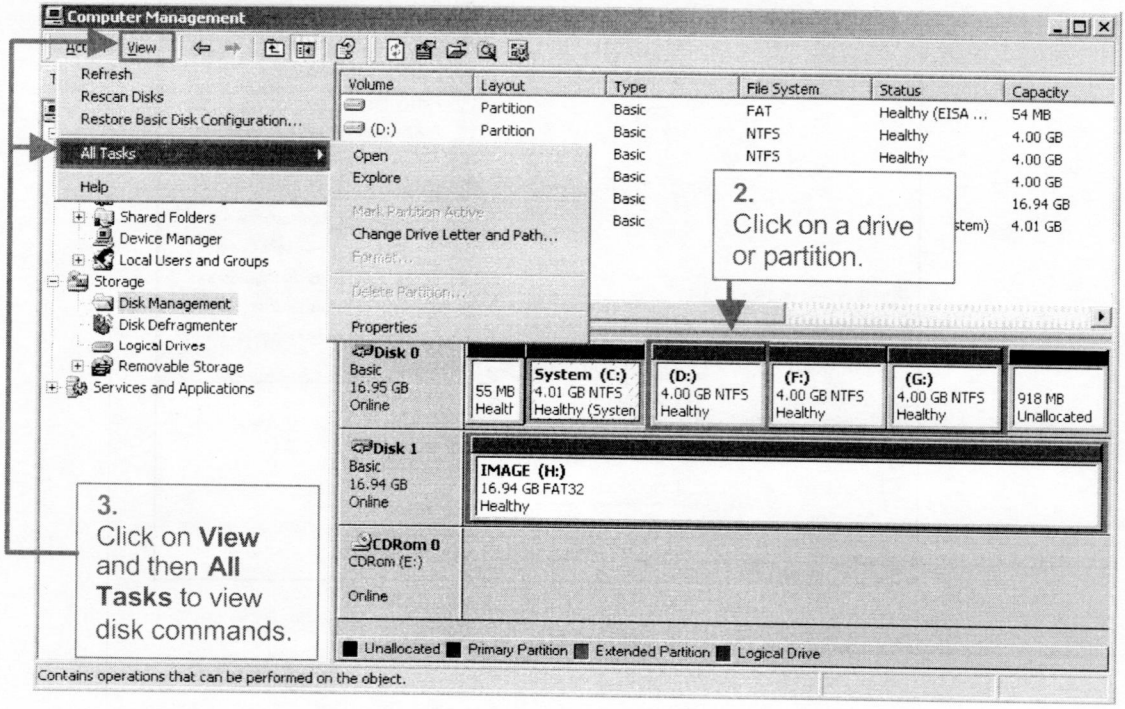


Figure 37: Working With Disk Management on the Computer Management Window

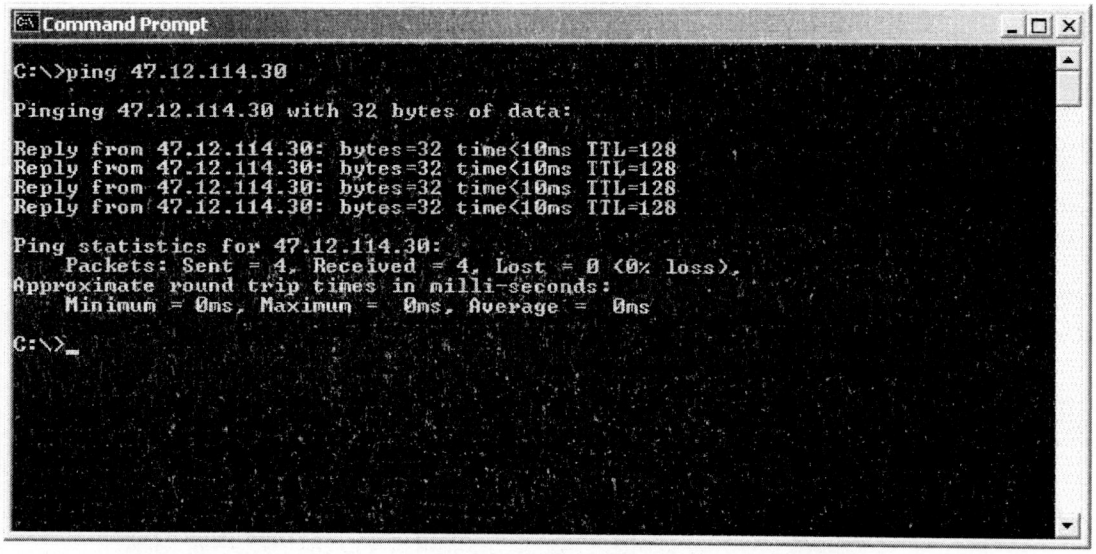


Test the Network Connections

The ping Test

To check connectivity for the network, go to a DOS prompt on the server, type **ping** (space), enter a **CLAN IP address,** and **enter**. A successful ping will respond as shown in the figure below. If the system comes back with a timed out message, connectivity has not been established.

Figure 38: The ping Test on the Command Prompt Window



Notes



Windows Networking Test

While logged in as Administrator, click on the **My Network Places** icon on the Windows 2000 desktop to open the My Network Places window. Click on **Entire Network** to open the Entire Network window and then click on **Search for computers**. Enter a computer name or IP address for a computer on your network on the Search Results-Computer window. Click on the **Search Now** button. When the computer is located, it is displayed on the right-hand side of the window with the name, location, and any comments listed. Double-click on the computer listed to view the directory of network drives on that computer. If you are able to see the directory under a network drive, you are connected to the network.

Note: This test requires a user name and password from the customer.

Figure 39: The My Network Places Icon on the Windows 2000 Server Desktop

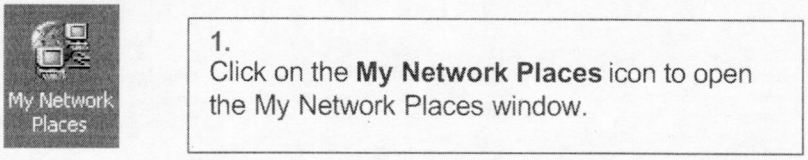


Figure 40: The My Network Places Window

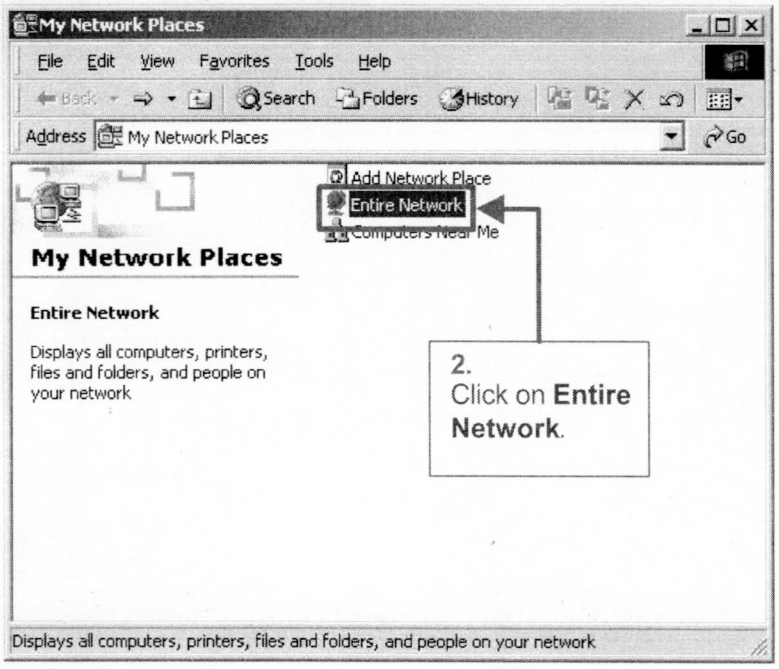


Figure 41: Search for Computers on the Entire Network Window

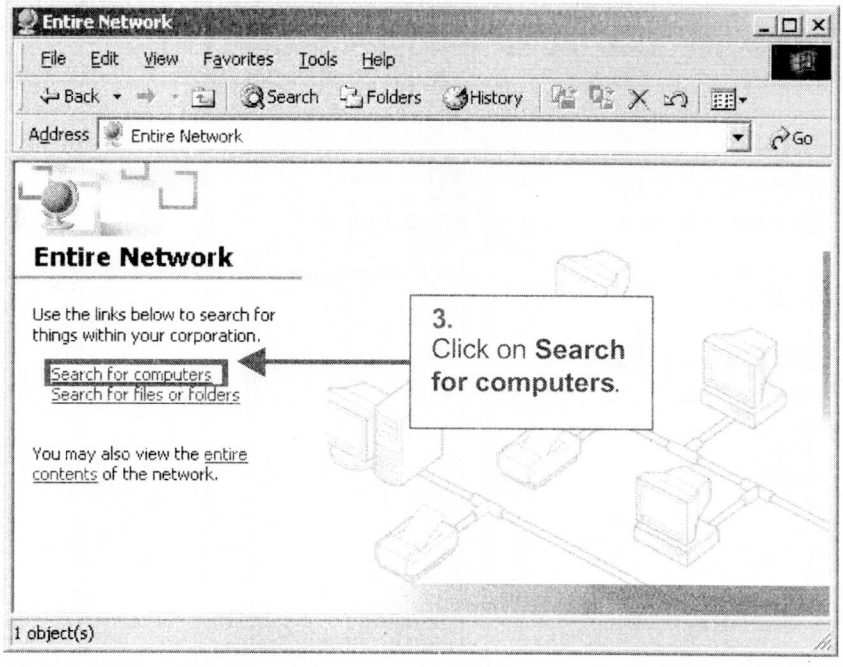


Figure 42: Enter the Computer Name or IP Address on the Search Results–Computer Window

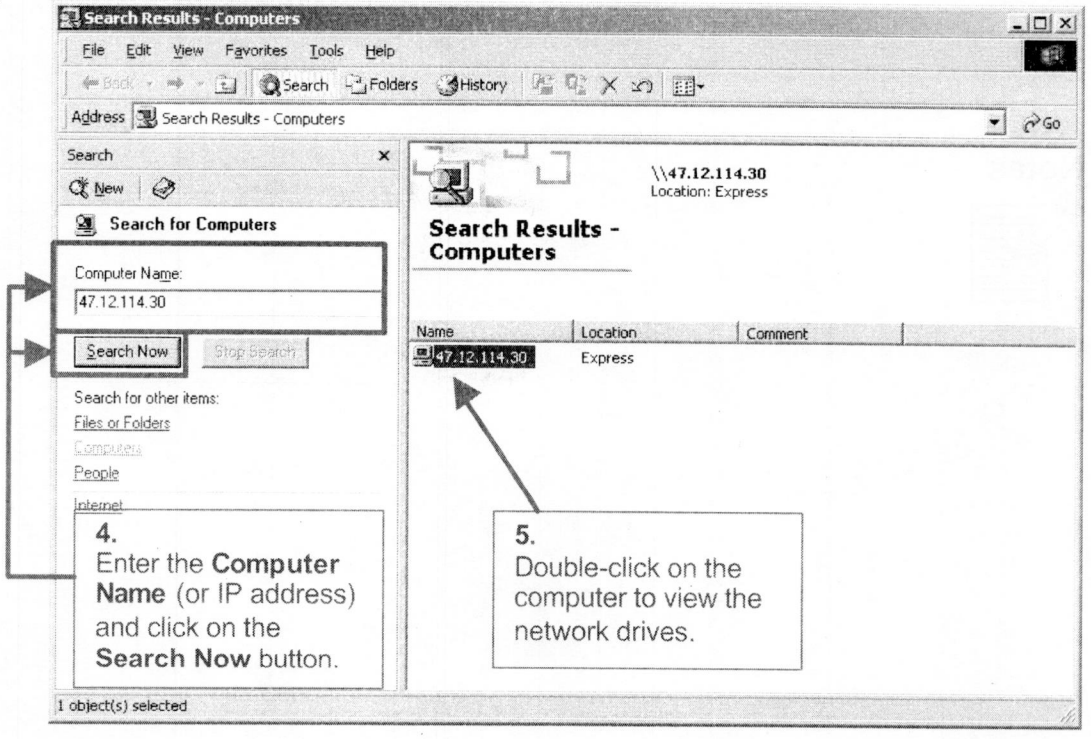
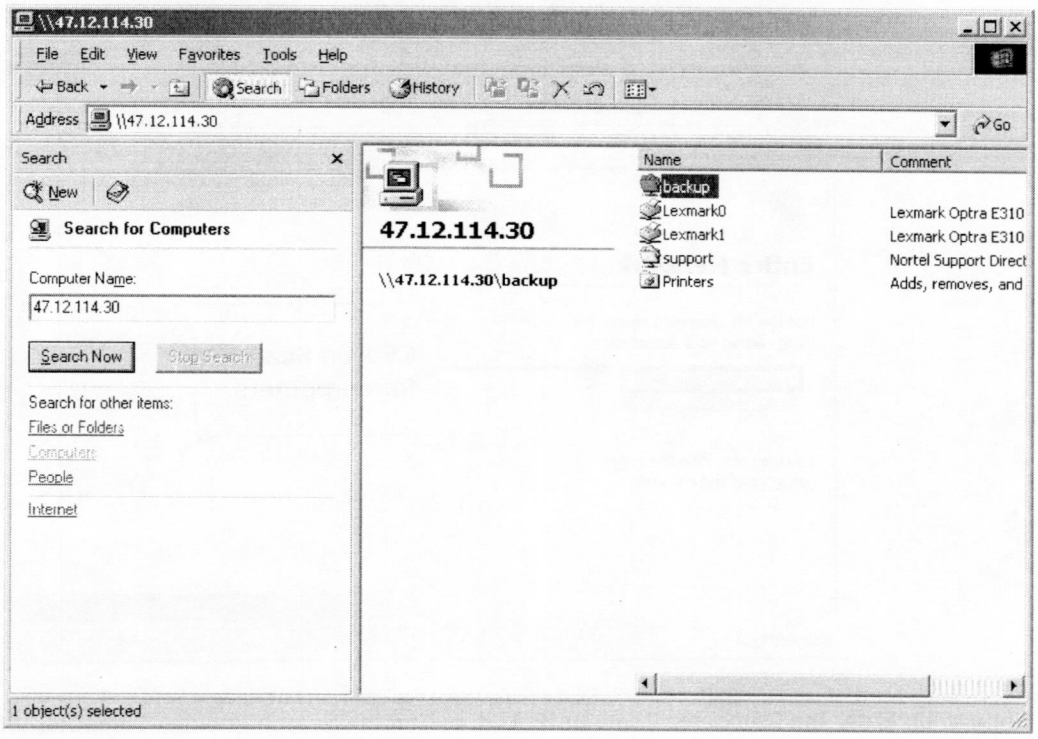


Figure 43: Viewing Files on the Search Results–Computer Window



Notes

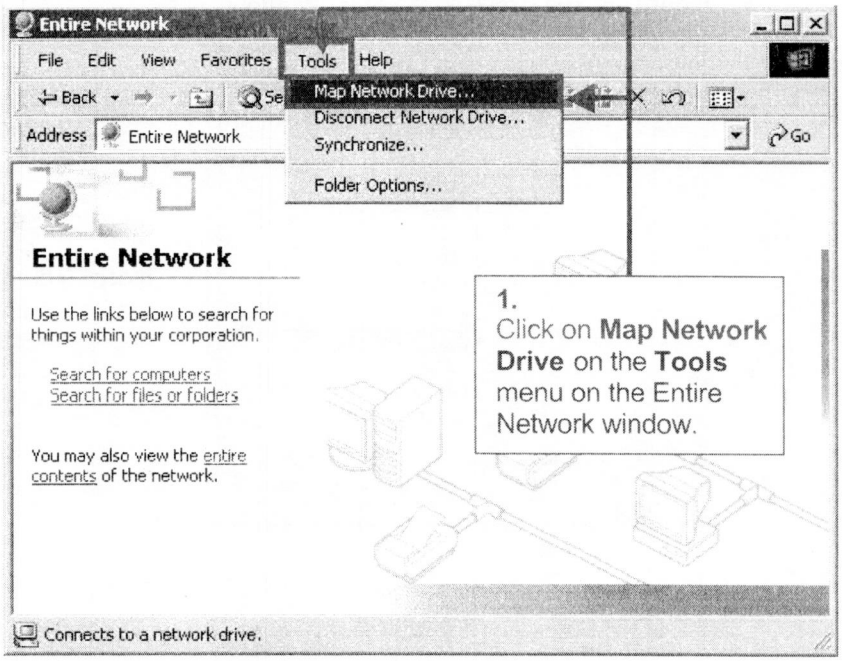


Mapping a Network Drive

Symposium Express Call Center supports the ability to perform a database backup to a remote directory on a network computer. To use this new backup procedure, you must first map a network drive. The ability to map a network drive offers another way that you can test your network connectivity.

To map a network drive, log on to the server PC as the Administrator, click on the **My Network Places** icon on the Windows 2000 desktop to open the My Network Places window, and then click on **Entire Network** to open the Entire Network window. Click on the **Tools** menu and then **Map Network Drive**. The Map Network Drive wizard opens. Select the drive letter for the connection and then browse to the folder on the network drive. Click on **Finish**, the Map Network Drive wizard closes, and the network drive window opens.

Figure 44: The Tools Menu on the Entire Network Window



Notes



Figure 45: The Map Network Drive Wizard

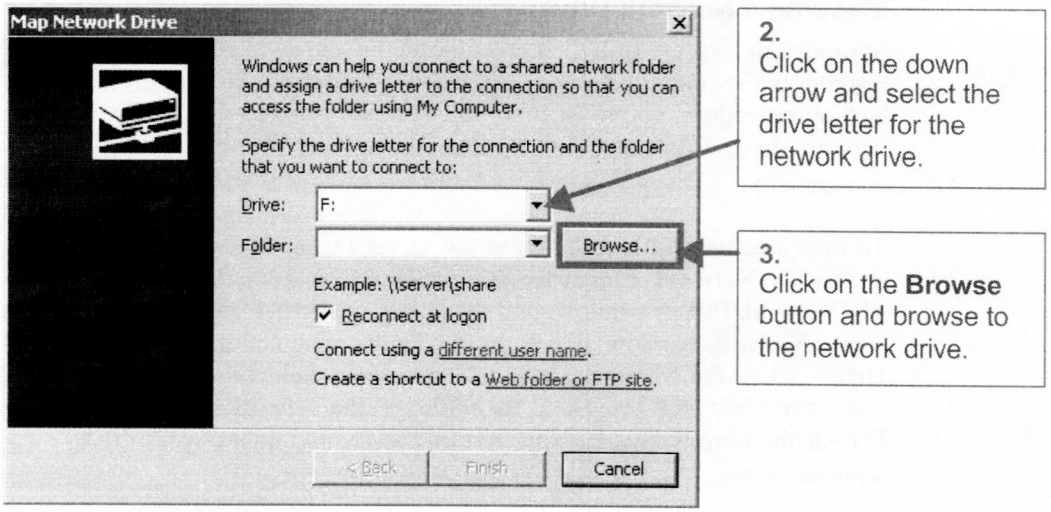
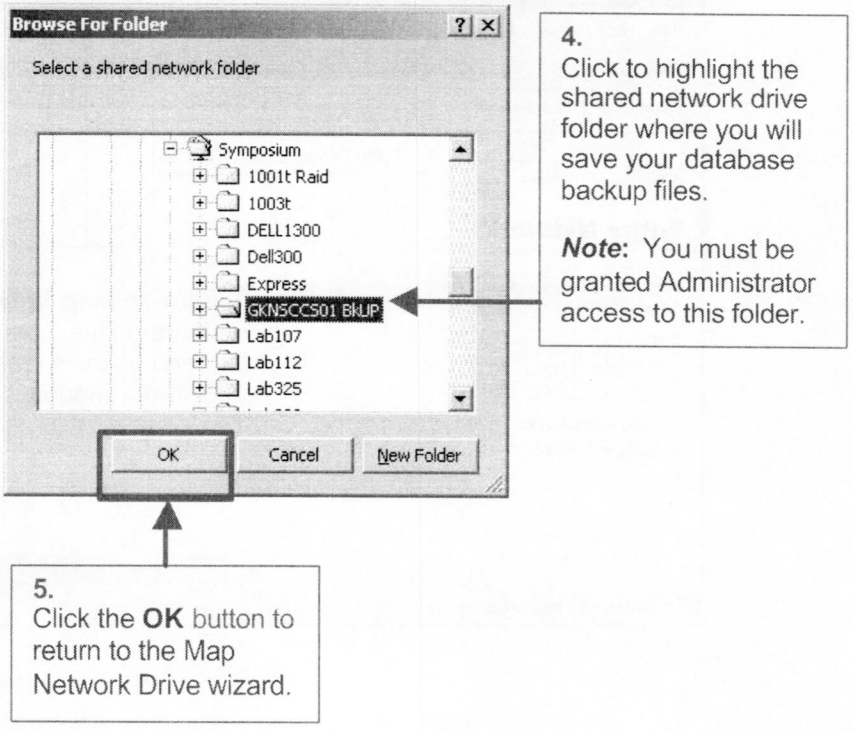


Figure 46: The Browse for Folder Window



Notes



Figure 47:The Map Network Drive Wizard with Folder Selected

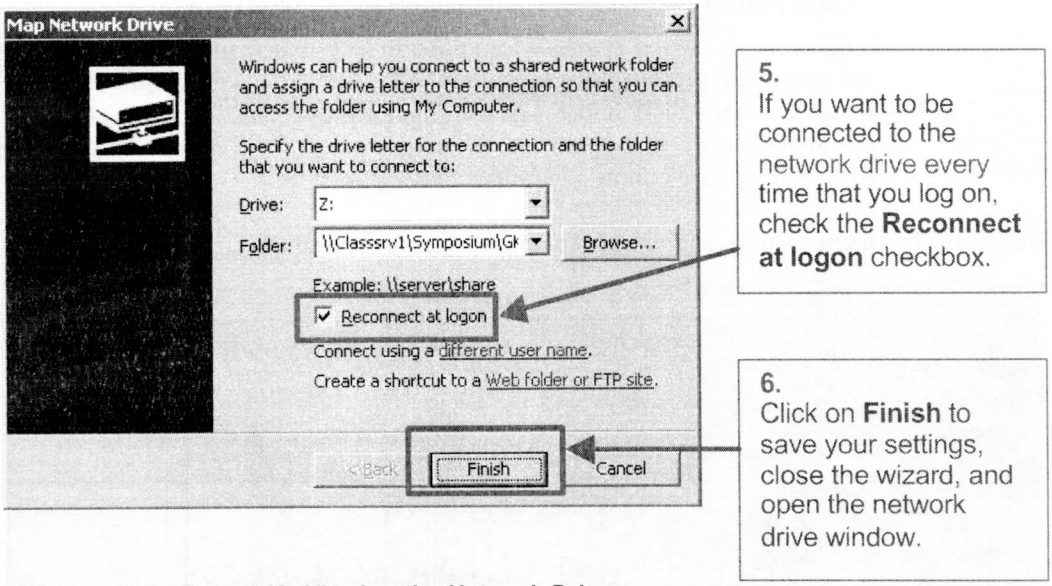
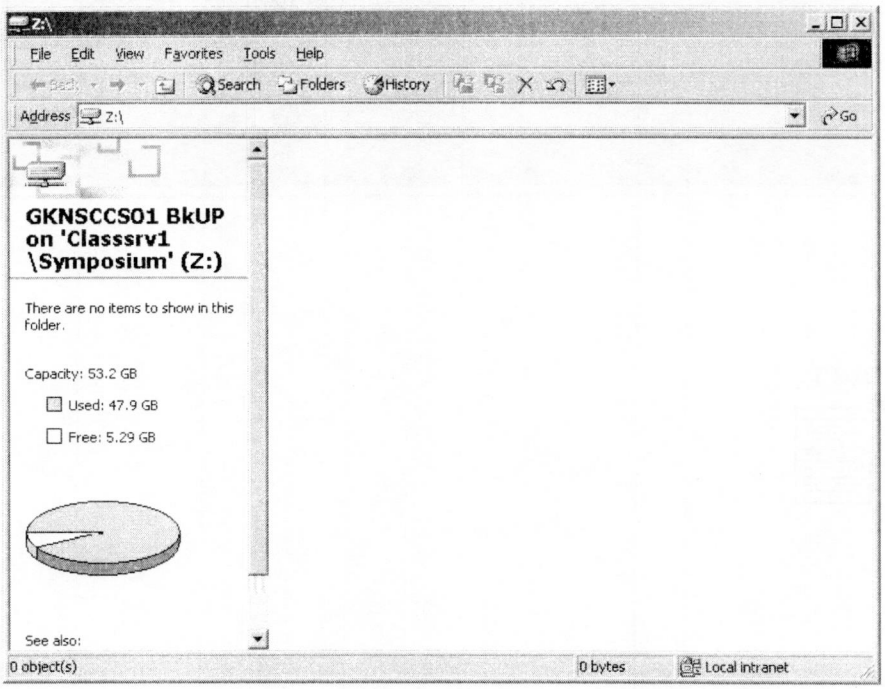


Figure 48: Viewing the Network Drive



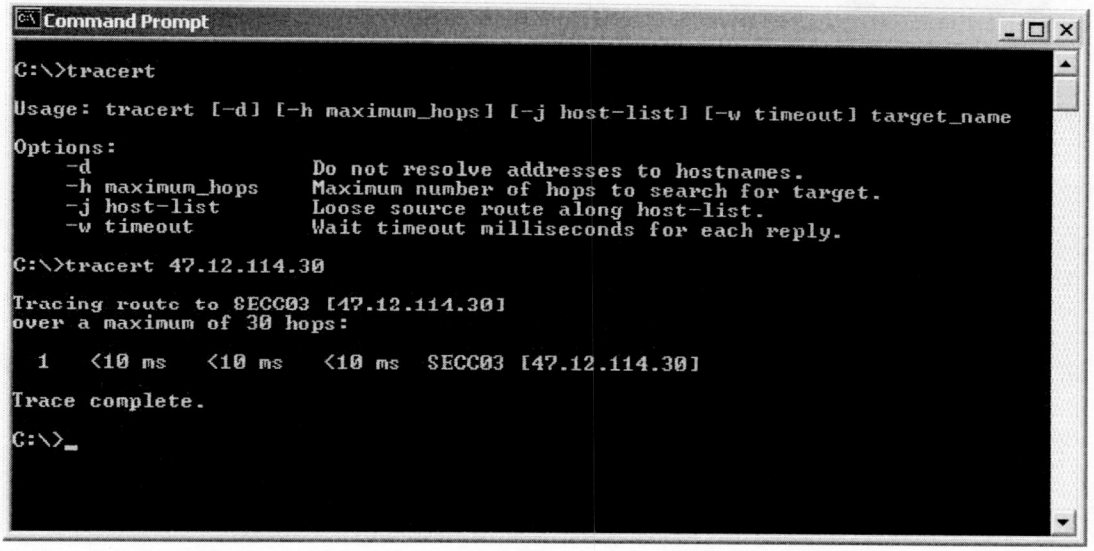
Notes



Trace Route

You can also use the **tracert** command to test your network connections. At the command prompt, type the command **tracert** (space) and then a computer name or IP address of a computer on your network. This command traces up to thirty "hops" across the network to another computer to which you are communicating.

Figure 49: The tracert Command on the Command Prompt Window



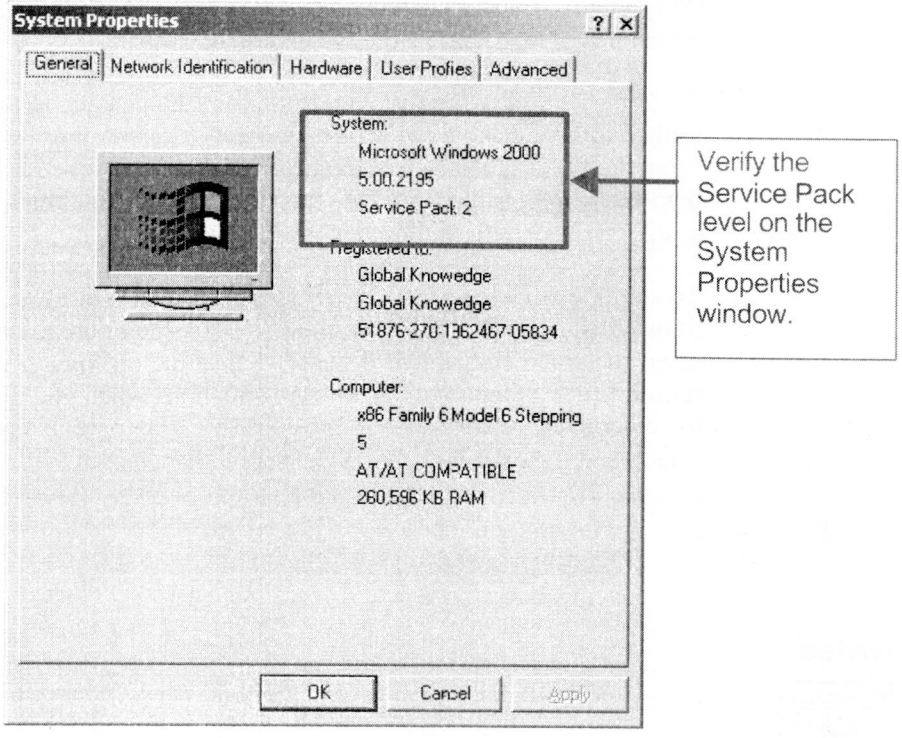
Notes



Windows 2000 Server Service Packs

Nortel Networks requires the installation of the Windows 2000 Server or Windows 2000 Advanced Server operating system with Service Pack 2 or higher as the minimum service pack level. This service pack contains important security fixes and improves the performance of the operating system.

Figure 50: Verifying the Service Pack on the System Properties Window



Notes



Emergency Repair Disk

The emergency repair diskette saves and restores details of the server's configuration. You can use it to repair an unbootable system after an operating system failure. You must update this diskette each time any configuration change is made on your server (such as changing the IP address or computer name) to record the latest changes. You cannot use the emergency repair diskette from one server to attempt to restore another server. You must create an emergency repair diskette for each server that you support. Label the emergency repair diskette to identify the server for which it was made, and store the emergency repair diskette in a safe place.

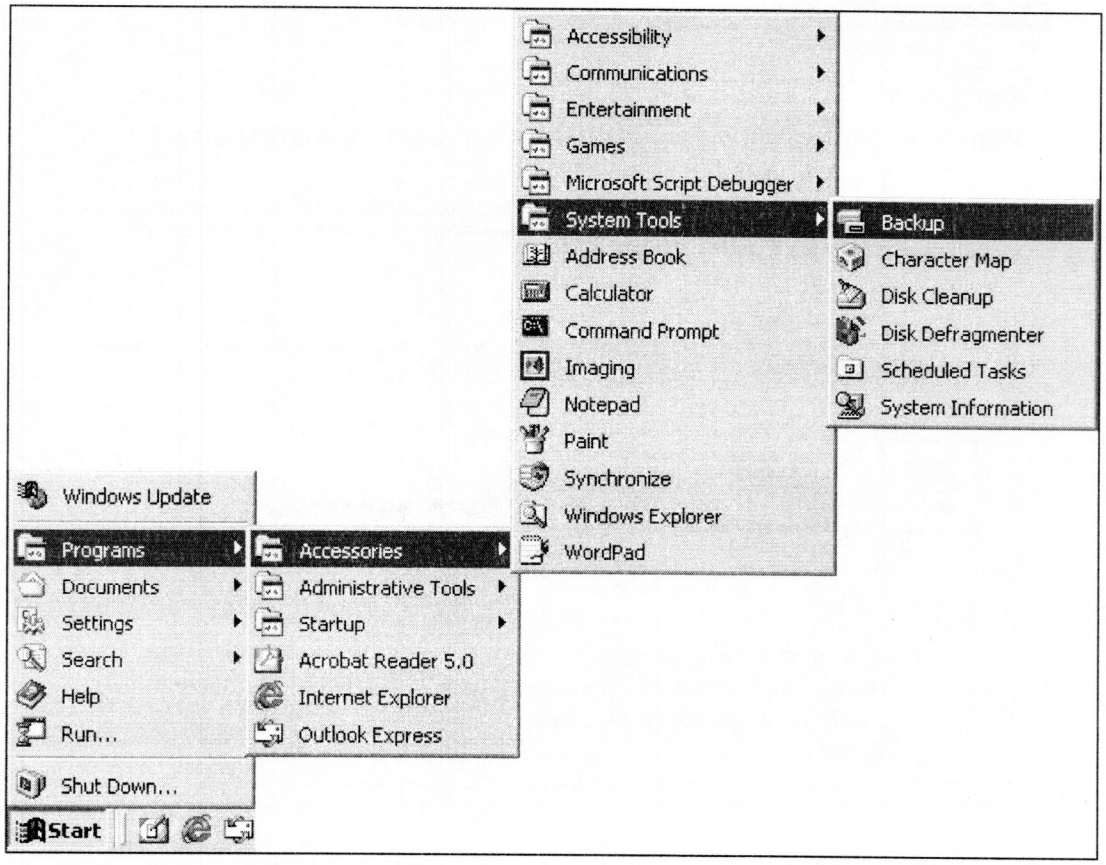
To create or update the diskette, first insert the diskette in the floppy drive (either a blank diskette, or an old emergency repair diskette to be updated). From the **Start** menu, select **Programs**> **Accessories**> **System Tools**> and then **Backup**. On the Welcome tab, click on **Emergency Repair Disk**. The system writes configuration data to your disk.

To start the emergency repair process, insert the **Windows 2000 Server Setup disk** and **reboot** the computer. When prompted, type **R** for repair and insert the emergency repair diskette. Select the **options** to verify, replace, or reinstall files as required. Below are situations when you may need to use the emergency repair diskette, the corresponding options that you should select, and the expected action that should happen.

Notes



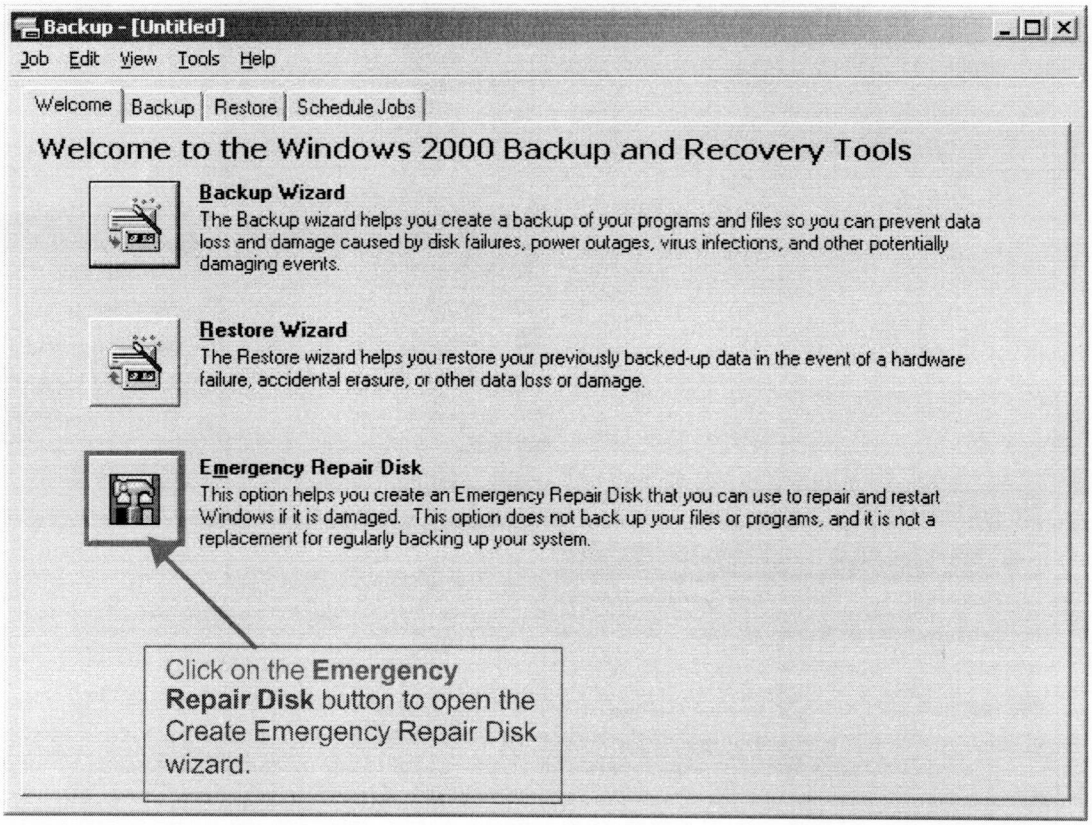
Figure 51: Accessing the Emergency Repair Disk Utility From the Start Menu



Notes



Figure 52: The Emergency Repair Disk Button on the Backup Window



Notes



Table 1: Emergency Repair Symptom, Options, and Action

Symptom	Options	Action
Receive STOP error upon rebooting the system	Select all options	Performs all four of the listed options
Problems after making recent system changes	Inspect Registry files -1-	Allows you to select the registry files to repair and replaces them with ones from the diskette
System files are missing or corrupt	Verify Windows 2000 system files -2-	Verifies the integrity of all Windows 2000 system files with the option to automatically replace all damaged files
Booting to MS-DOS on a dual boot system without giving you a choice	Inspect Boot Sector -3-	Copies a new boot sector to your disk and boots system when you cannot boot any system installed on your computer
Error that no version of Windows 2000 Server is found	Inspect Startup Environment -4-	Repairs an installation of Windows 2000 Server when Windows 2000 does not appear in the list of bootable systems



Tip: *The emergency repair diskette is used for Windows 2000 Server system files and configuration errors. The User database is stored using the Symposium Express Call Center backup utility.*

Notes





Practice

Setting Up the Server Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers on the Answers to Practice pages that follow this practice.

Select Answer

5. Which versions of the Windows 2000 operation system are supported for the installation of Symposium Express Call Center?

- a. Windows 2000 Server
- b. Windows 2000 Professional
- c. Windows 2000 Advanced Server
- d. Windows 2000 Datacenter Server

Select Answer

6. Which Service Pack is required for the Windows 2000 Server or Window 2000 Advanced Server operation system used on the Symposium Express Call Center PVI server?

- a. Service Pack 1
- b. Service Pack 2 or higher
- c. Service Pack 3 or higher
- d. No Service Pack is required

reset



Answers to Practice

Setting up the Server Questions

Check your answers to the practice.

1. When configuring the Windows 2000 Server operating system for Symposium Express Call Center, what Licensing mode does Nortel Networks recommend?

   a. Per seat licensing mode with no concurrent connections

   b. Per seat licensing mode with a minimum of 5 concurrent connections

   c. **Per server licensing mode with a minimum of 5 concurrent connections**

   d. Per server licensing mode with a minimum of 2 concurrent connections (CLAN & ELAN)

2. When configuring the Windows 2000 Server operating system for use with your Symposium Express Call Center PVI server, you must ensure that the SNMP service is not installed and that the IIS service is installed.

   a. True

   b. **False**

3. Nortel Networks recommends that you configure a paging file in the Virtual Memory settings on the Symposium Express Call Center PVI platform Windows 2000 server operating system. Your server has 256 Mbytes RAM. How large should the paging file be?

   a. 256 Mbytes

   b. 384 Mbytes

   c. 512 Mbytes

   d. 768 Mbytes

4. When installing Symposium Express Call Center on the PVI server, which serial port is reserved for the modem connection?

   a. **COM1**

   b. COM2

   c. COM3

   e. USB port

5. Which versions of the Windows 2000 operation system are supported for the installation of Symposium Express Call Center?

   a. **Windows 2000 Server**

   b. Windows 2000 Professional

   c. **Windows 2000 Advanced Server**

   d. Windows 2000 Datacenter Server

6. Which Service Pack is required for the Windows 2000 Server or Window 2000 Advanced Server operation system used on the Symposium Express Call Center PVI server?

   a. Service Pack 1

   b. Service Pack 2 or higher

   c. Service Pack 3 or higher

   d. No Service Pack is required



Skill Check

Setting up the Server

Perform the tasks listed below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide.*

If the equipment is not available, write out the procedures that you need to follow to complete the tasks.

1. Using the *Installation and Maintenance Guide*, connect the keyboard, mouse, Ethernet cables, and modem. Power up the server.
2. Using the "Checklist for configuring Windows 2000 if it is already installed" in the "Configuring Windows 2000" section of the "Server software" Chapter in the *Symposium Express Call Center Planning, Installation, and Administration Guide*, Configure the Windows 2000 Server operating system on the PVI server for Symposium Express Call Center installation



Skill Check Feedback

Setting up the Server

You have successfully completed the hardware installation when the server powers up and the peripherals are operational. You have successfully set up the server when each step on the "Checklist for configuring Windows 2000 Server if it is already installed" is finished. Your server PC is now ready for you to begin the installation of the Symposium Express Call Center application software.

Step	Setting Up the Server	V
1	Connect peripheral devices to the PVI server platform: - Connect Monitor - Connect Mouse - Connect Keyboard - Connect ELAN Ethernet cable - Connect CLAN Ethernet cable - Connect RAS Modem to COM1 port - Connect Printer to Parallel port - Power up the server	

Step	Setting Up the Server (continued)	V
2	Configure the Windows 2000 Server operating system - Verify that the Computer Name and DNS Host Name match exactly - View the procedure to change the Administrator password - Check the licensing mode - Verify that SNMP is installed - Verify that IIS is not installed - Check the virtual memory settings - Set the date and time - Set the time zone - Configure TCP/IP settings for the CLAN and ELAN - Configure the modem connection for remote access - Configure the operating system for remote access - Check the bindings for the CLAN and ELAN NIC cards - Check the serial port configuration - Verify that all disk drives are formatted correctly for your server platform - Install any additional required drivers - Test your network connection - Verify the Windows 2000 Server Service Pack level - Update the Emergency Repair disk	

Summary

In this lesson you learned how to set up the Server once it arrives on site. The operating systems were installed at the factory using dummy values. Customer specific information must be entered after the system arrives at the customer site destination.

The next lesson takes you through the process of installing the Symposium Express Call Center application software.

Installing the Server Software

Introduction

This lesson teaches you to install the Symposium Express Call Center server application software on the PVI server that you have prepared. The software installation is a three-phase process:

- Phase 1: Install the Symposium Express Call Center server application software.
- Phase 2: Install the Sybase ASE 12 software and then create and initialize the Symposium Express Call Center database.
- Phase 3: Configure the database and system software for your specific site.

Each phase of the installation is covered in detail.

This lesson also provides instruction on pre-installation tasks such as gathering the required equipment and software and performing a platform compliance check. The installation of Product Improvement Packages (PEPs), Service Updates (SUs), and additional required server software is also covered.

Objective

At the conclusion of this lesson, given your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*, you will be able to load the Symposium Express Call Center server application on a fully prepared customer-supplied PVI server.

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Installing the Software"		

Terms

PEP

A Performance Enhancement Package (PEP) is a supplementary software application that enhances the functionality of previously released software by improving performance, adding functionality, or correcting a problem discovered since the original release.

Service Update (SU) Packs

Service Update Packs, also known as "super PEPs," consist of individual Performance Enhancement Packages (PEPs) that are periodically consolidated into a Service Update Pack.

Sybase ASE 12

Sybase Adaptive Service Enterprise version 12 is third-party software from Sybase that includes database server, open client, and Open Database Connectivity (ODBC) driver. The Sybase software installs as part of the Symposium Express Call Center server application software installation.

Installing the Server Software Application

This procedure pertains to installing the Symposium Express Call Center server application software on the PVI server for the first time or reinstalling the same version of the software.

The installation procedure includes the following three phases:

Phase 1: Product software installation

Phase 2: Product database installation

Phase 3: Software and database configuration



Tip: *If you encounter a problem with the installation, go back and restart the phase that failed. You do not need to restart the installation procedure from the first step.*



Tip: *You can perform the first two installation phases in advance of the server arriving at the customer site.*

Prior to Software Installation

Before you begin the Symposium Express Call Center server application software installation, you must ensure the following prerequisite tasks are completed:

- Your system is set up according to the requirements listed in the "Customer-supplied equipment and data requirements" section of the "Getting started" chapter in the *Symposium Express Call Center Planning, Installation, and Administration Guide.*
- Your Meridian 1, Meridian 1 Internet Enabled, or Succession CSE 1000 switch is configured properly for use with Symposium Express Call Center.
- No other application software is resident on the PVI server where the software is to be installed.
- Any power-saving features are turned off to eliminate the possibility of the automated installation being interrupted when a power-saving feature is turned on.
- All screen savers are disabled to prevent the screen savers from using CPU processing power required by the Symposium Express Call Center installation.

High Level Steps

High-level steps of the software installation covered in this lesson include:

No.	Symposium Express Call Center Server Software Installation	V
1.	Obtain the current and default administrator passwords.	
2.	Perform a Platform Compliance Check.	
3.	Install the product software.	
4.	Install the latest Install-time PEP.	
5.	Install the product database. **Note:** If you are installing an Asian version of Nortel Networks Symposium Express Call Center, install the appropriate language PEP before proceeding.	
6.	Configure the server and database.	
7.	Install the latest Service Update pack and any required PEPs on the server.	

Gather Materials

The CD-ROMs required to complete the Symposium Express Call Center installation are listed below:

- Symposium Express Call Center Release 4.2 Server Application CD-ROM (contains the Symposium Express Call Center server installation software and the Platform Compliance Check utility).
- Symposium Express Call Center Release 4.2 Client Application CD-ROM
- Symposium Express Call Center Release 4.2 Supplementary CD-ROM (contains any additional software components required for Symposium Express Call Center to operate, such as Performance Enhancement Packages (PEPs) or Service Update packs).
- Symposium Express Call Center Release 4.2 Documentation CD-ROM
- pcAnywhere Release 10.5 Host-Only CD-ROM
- GRTD Release 3.05.05 CD-ROM

Notes



In addition to the software CD-ROMs, you will need the following:

- Keycode data (typically provided on a disk)
- Platform recovery diskette



Tip: *Before performing an installation, ensure that you have the most current Distributor's Technical Reference (DTR) and any Installation Addendums or updated customer documentation. Refer to your regional Symposium Express Call Center technical Web Site. Your distributor or a Nortel Networks representative can provide the Web address.*

Before starting the software installation and configuration, ensure that the hardware platform has been properly configured, including disk partitioning and Windows 2000 server installation and configuration. The server must be powered on and the Windows 2000 server logo displayed.

Gather Information

Gather the following information:

- Customer name ✓
- Company name ✓
- Keycode ✓
- Serial number ✓
- Switch name ✓
- Switch customer number ✓
- ELAN addresses ✓
- CLAN addresses ✓
- Site name (up to 15 characters) ✓



Tip: *Installing the server application software takes a minimum of three hours, depending on your platform.*

Notes



Perform Platform Compliance Check

Log on to the server with the user name **Administrator** and password **abc123**. Once you have inserted the Server Application CD, a Setup main menu appears. Nortel Networks recommends that you perform a platform compliance check using the compliance check program provided on the CD. Select the first menu item **Platform Compliance Check**. If your PVI server is compliant, an **OK** appears in the status column adjacent to the items listed. If any items are not compliant, the status column reflects **Error**, and an explanation is provided in the Notes column. You must address any non-compliance issues before you can proceed with the installation.

Figure 1: Accessing the Platform Compliance Check from the Setup Window

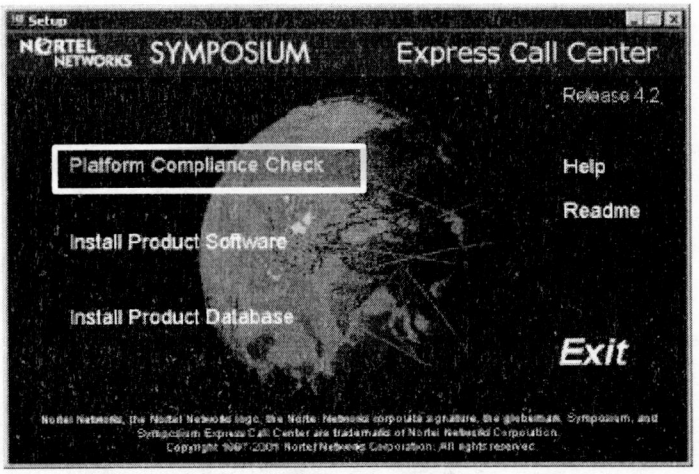
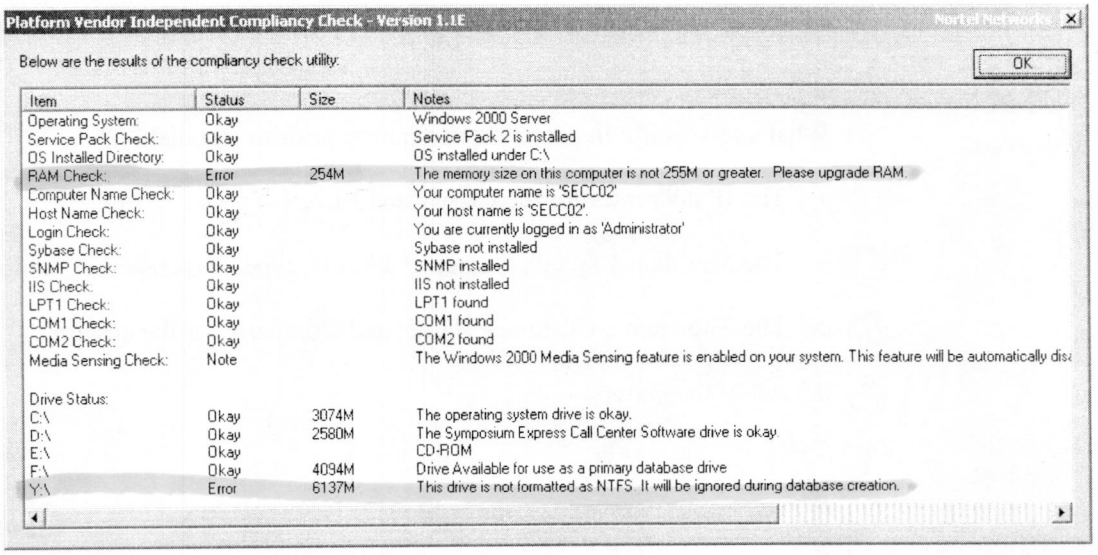


Figure 2: The Platform Vender Independent Compliancy Check Results Window



Item	Status	Size	Notes
Operating System:	Okay		Windows 2000 Server
Service Pack Check:	Okay		Service Pack 2 is installed
OS Installed Directory:	Okay		OS installed under C:\
RAM Check:	Error	254M	The memory size on this computer is not 255M or greater. Please upgrade RAM.
Computer Name Check:	Okay		Your computer name is 'SECC02'
Host Name Check:	Okay		Your host name is 'SECC02'.
Login Check:	Okay		You are currently logged in as 'Administrator'
Sybase Check:	Okay		Sybase not installed
SNMP Check:	Okay		SNMP installed
IIS Check:	Okay		IIS not installed
LPT1 Check:	Okay		LPT1 found
COM1 Check:	Okay		COM1 found
COM2 Check:	Okay		COM2 found
Media Sensing Check:	Note		The Windows 2000 Media Sensing feature is enabled on your system. This feature will be automatically dis
Drive Status:			
C:\	Okay	3074M	The operating system drive is okay.
D:\	Okay	2580M	The Symposium Express Call Center Software drive is okay.
E:\	Okay		CD-ROM
F:\	Okay	4094M	Drive Available for use as a primary database drive
Y:\	Error	6137M	This drive is not formatted as NTFS. It will be ignored during database creation.



Practice

Installing the Server Software Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to practice pages that follow.

Select Answer

1. On which of the following listed CD-ROMs required to complete the Symposium Express Call Center installation contains the Platform Compliance Check utility?

- a. Symposium Express Call Center Release 4.2 Documentation CD-ROM
- b. Symposium Express Call Center Release 4.2 Supplementary CD-ROM
- c. Symposium Express Call Center Release 4.2 Server Application CD-ROM
- d. Symposium Express Call Center Release 4.2 Client Application CD-ROM

Select Answer

2. What site-specific information is required prior to installation?

- a. The IP addresses for the CLAN and ELAN
- b. The Meridian 1 switch Name, IP address, type, and customer number
- c. The Site Name, Customer Name, and Company for the system
- d. All of the above

reset

Perform the Product Software Installation (Phase 1)

From the Setup Main Menu, start the installation process by clicking on **Install Product Software**. The Symposium Express Call Center InstallShield Wizard appears and walks you through the installation.

The installation process copies all Symposium Express Call Center server application files from the media source (CD) to the server and installs all defined features and components. The Symposium Express Call Center server application software installation includes all application files and database script files except for the Sybase ASE 12 software. The Sybase ASE 12 software is installed as part of the database installation and initialization process.

Figure 3: The Setup Main Menu

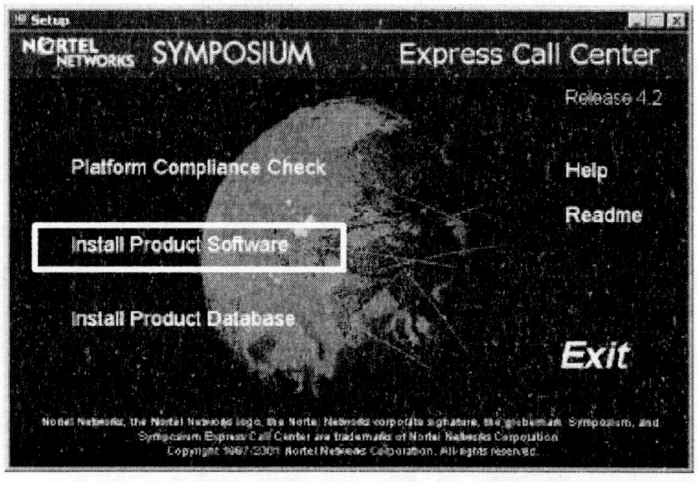


Figure 4: The Symposium Express Call Center InstallShield Wizard

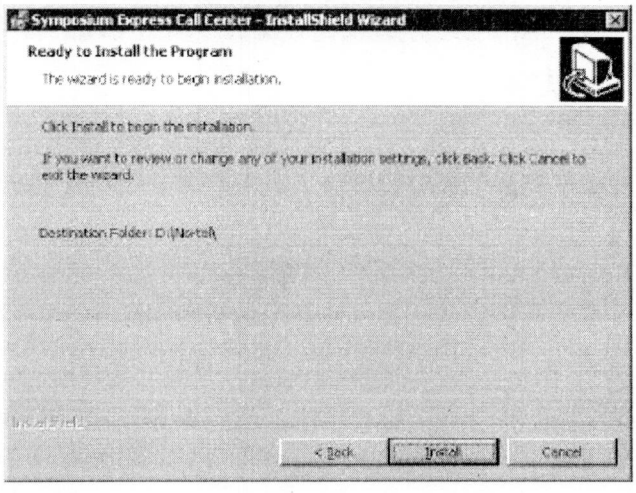


Figure 5: The InstallShield Wizard Copying Files

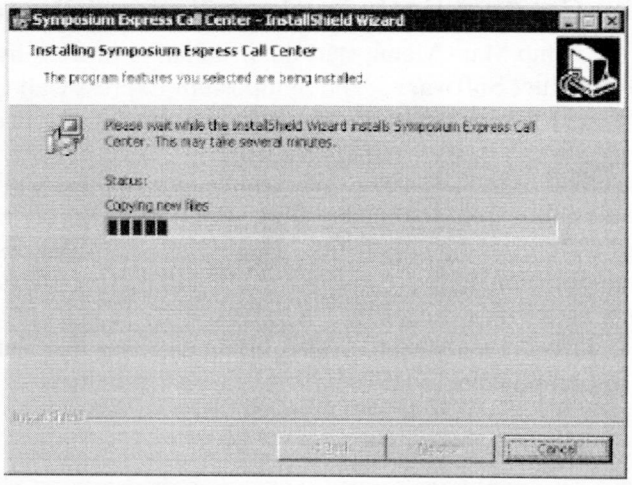


Figure 6: The InstallShield Wizard Completed



Notes



Apply the Most Current Install-time PEP

Following the product software installation, apply the latest Install-time (Product Enhancement Package) PEP available from the Meridian PEP Library Web site.

There are two types of server PEPs: Install-time PEPS and General PEPs. Install-time PEPs must be installed after the product software is installed but before the product database is installed. Install-time PEPs update the server software to take care of any known issues with the installation or configuration before you continue with the installation. General PEPs must be installed after the server software and database have been installed and configured.

You can distinguish Install-time PEPs from General PEPs by the PEP ID, as follows:

- For Install-time PEPs, the second character is an I (for example, NI040206E001S).
- For General PEPs, the second character is an S (for example, NS040206E004S).

Follow the steps below to install the Install-time PEP:

- Log on to the server as **NGenSys**
- Ensure that you have closed all applications
- To install PEPs from CD-ROM, insert the Supplementary CD into the CD-ROM drive and browse to the PEP directory on the CD
- To install PEPs that you have downloaded from the Web, browse to the directory into which you downloaded the PEP
- Double-click on the **.msi file** associated with the PEP

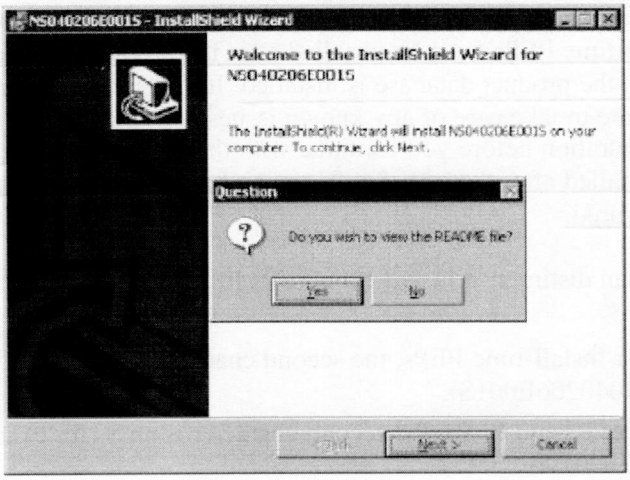
Notes



Click **Yes** to read the information in the readme file. When you are finished reading, close the file.

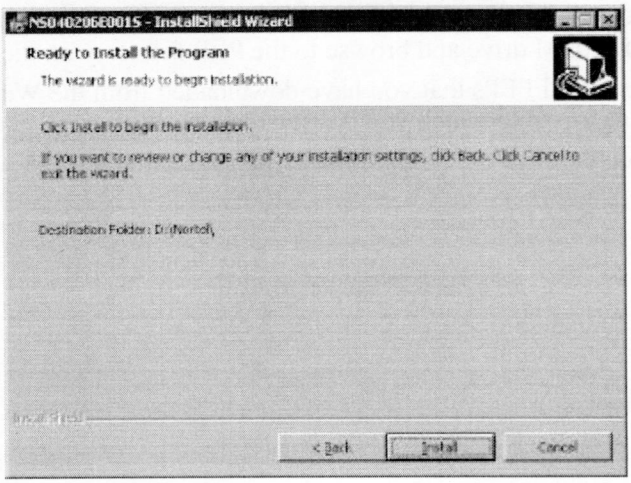
Click **No** if you do not want to read the readme file at this time.

Figure 7: Do You Wish to Read the Readme File



Click **Next** to proceed.

Figure 8: The Ready to Install Window



Click **Install**.

Note: When installing an Install-time PEP, the server is not active; no services are running, so no services must be shut down.

Figure 9: The PEP Install Wizard Completed Window



Click **Finish**.

After you have installed the Install-time PEP, you will be prompted to reboot the server for the PEP for the configuration changes made by the PEP to take effect. Do Not Reboot the server at this time. Proceed to the product database installation and initialization (Phase 2).

You can use the PEP Viewer utility to confirm that the PEP has been installed on the server. To start the PEP Viewer utility, click on **Start**, **Programs**, **Symposium Express Call Center**, and then **PEP Viewer**. On the PEP Utility – Service Update and PEP Record Information window, click to open the **PEP Records** tab.

Notes



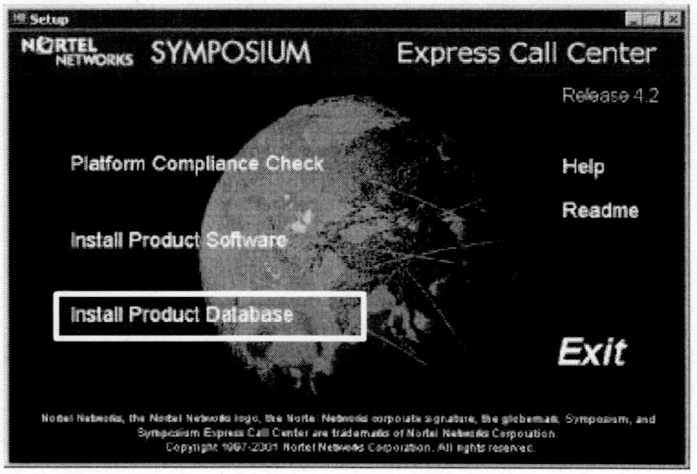
Perform the Product Database Installation (Phase 2)

The database installation and initialization process consists of two major sub-processes:

- Sybase ASE 12 software installation
- Symposium Express Call Center database creation and initialization

If you have not already logged in as Administrator and inserted the CD, you must do so. From the Setup main menu that appears, select **Install Product Database**. The program walks you though the installation.

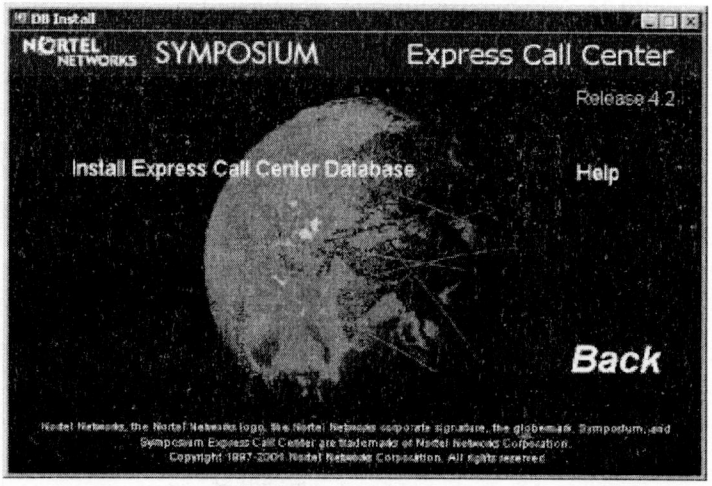
Figure 10: Accessing Install Product Database from the Setup Window



Caution: *During the database installation, do not close any windows that appear unless the on-screen instructions tell you to do so.*

Notes

Figure 11: The DB Install Window



Select **Install Express Call Center Database**.

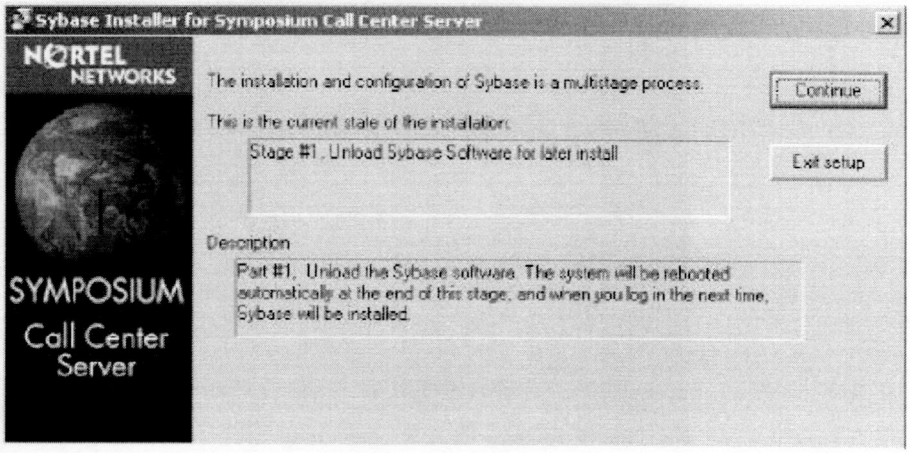
The Sybase Installer window displays the current state of the installation process. There are six stages to the database installation and configuration. Some stages are broken into parts. Stages appear in the top status box, and descriptions of the parts appear in the Description box.

Caution: *Before you proceed to the next step, ensure that the Symposium Express Call Center Server Application CD is in the CD-ROM drive. The installation CD must be in the CD-ROM drive during the entire database installation process.*

Caution: *Do not create a shortcut to the installation CD. To access the Symposium Express Call Center setup wizard if autorun does not launch, open the Windows Explorer and double-click* ***Setup.exe*** *in the CD-ROM directory.*

Notes

Figure 12: The Sybase Installer Window Stage 1



Click **Continue** to proceed with the Sybase installation.

The system proceeds with Stage 1, Part 1. When Part 1 is complete, the server automatically restarts.

Log on as **Administrator**. The Sybase Installer window reappears, showing the status as Stage 1, Part 2.

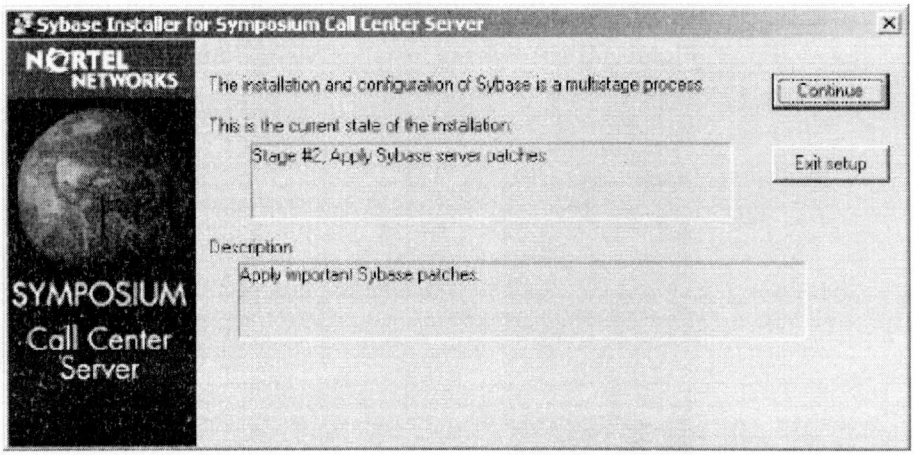
Tip: *If an MS-DOS window appears instead of the Sybase Installer window, wait until the MS-DOS window completes its processes. Do not close it. After the process has completed, the Sybase Installer window will reappear.*

Click **Continue** to proceed with the Sybase installation.

Stage 1, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, Stage 2.

Notes

Figure 13: The Sybase Installer Window Stage 2



Click **Continue** to proceed with the Sybase installation.

The installation proceeds through Stage 2, and Stage 3, Part 1. When Stage 3, Part 1 is complete, the server automatically restarts.

Log on as **Administrator**. The Sybase Installer window reappears, showing the status as Stage 3, Part 2.

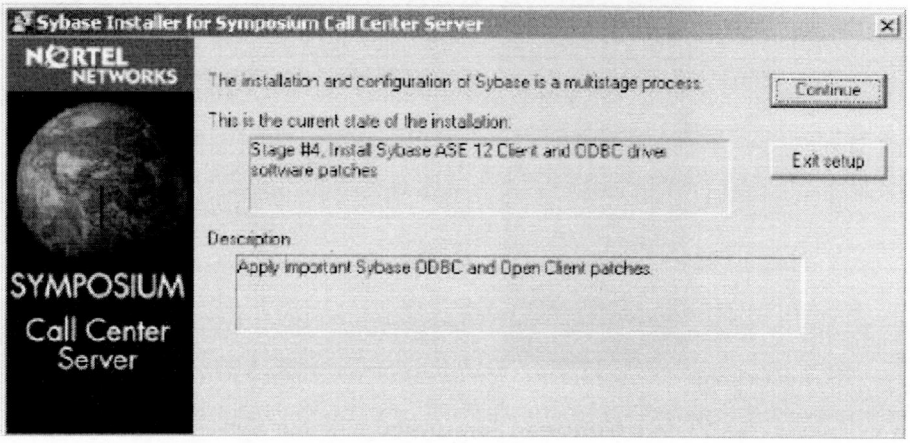
Tip: *If an MS-DOS window appears instead of the Sybase Installer window, wait until the MS-DOS window completes its processes. Do not close it. After the process has completed, the Sybase Installer window will reappear.*

Click **Continue** to proceed with the Sybase installation.

Notes

Stage 3, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, Stage 4.

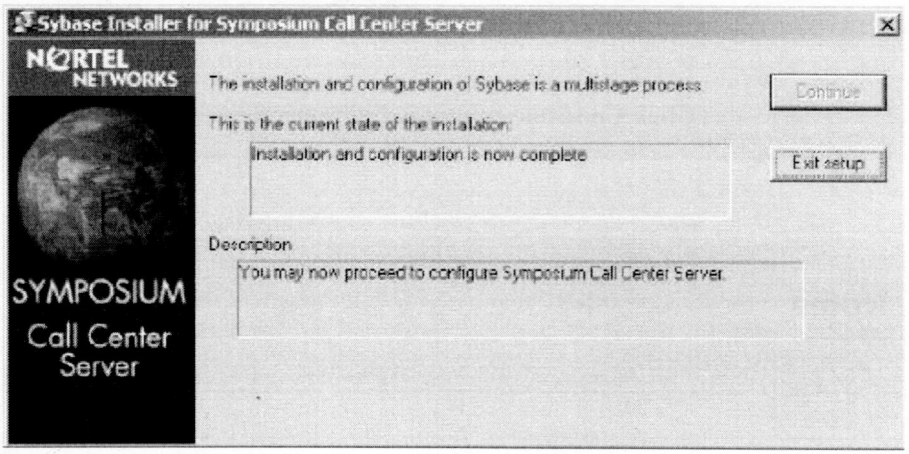
Figure 14: The Sybase Installer Window Stage 4



Click **Continue** to proceed with the Sybase installation.

The installation proceeds through Stages 4, 5, and 6. These stages can take from one to three hours to complete, depending on your CPU speed, and the size and number of database partitions that you have. When the installation is complete, the Sybase Installer window appears with the status "Installation and Configuration complete."

Figure 15: The Sybase Installer Window Installation & Configuration Complete



Click **Exit setup**. Do not restart the server.

Perform the Server and Database Configuration (Phase 3)

Configure the Symposium Express Call Center server according to the specified customer's configuration information. Run the configuration utility after the Symposium Express Call Center server application software and database software are installed on the server PC.

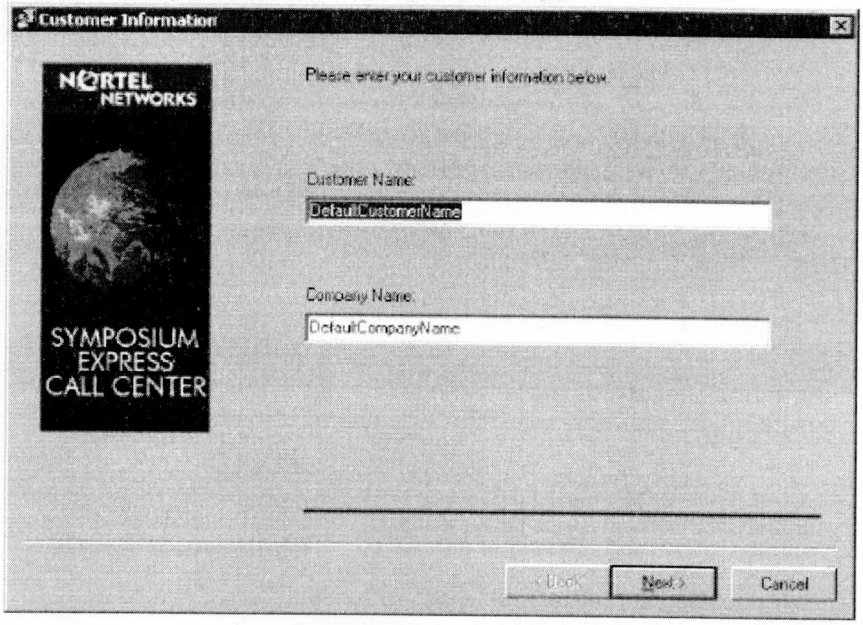
If you have not already logged on to the server as the Administrator, do so now. From the **Start** menu, select **Programs>Symposium Express Call Center >Server Configuration**. Enter your server and site-specific information as requested in the series of dialog boxes that display on your screen as you progress through the configuration utility.

The program prompts you to enter information, such as the switch serial number, keycode, switch type, switch name, ELAN IP address, CLAN IP address, and site name. Following is information to keep in mind when making certain entries:

Customer Information

Enter your **Customer Name** and **Company Name** in the Customer Information window.

Figure 16: The Server Configuration Customer Information Window

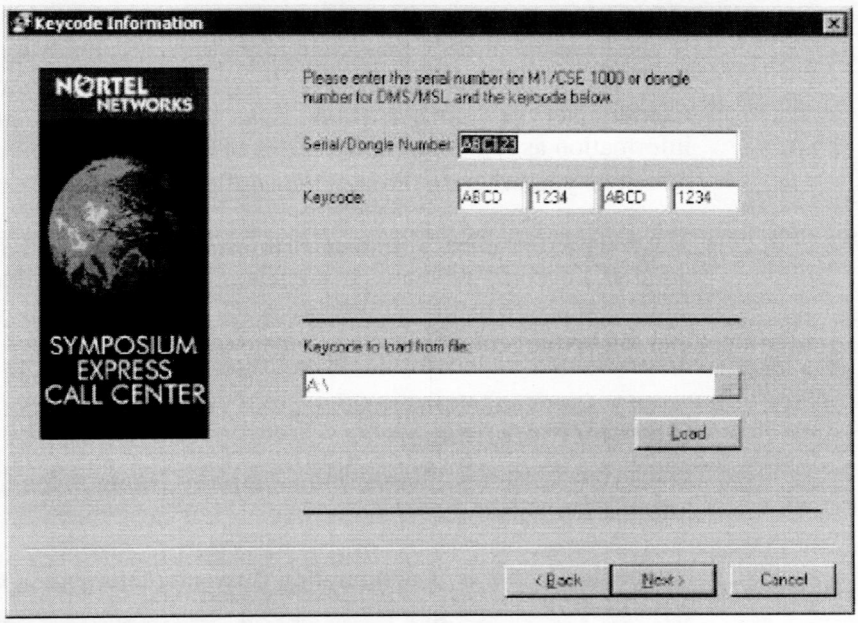


Click **Next** to continue the configuration utility.

Keycodes and Verification

The Server Configuration utility prompts you for the **Keycode** and **Serial Number** information for this installation.

Figure 17: The Server Configuration Keycode Information Window



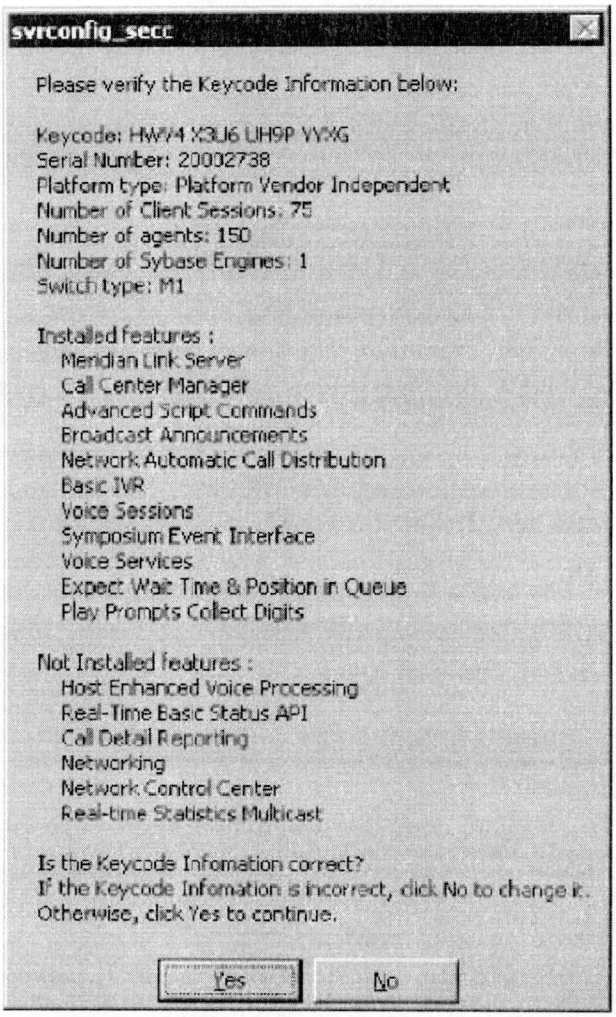
Click **Next** to continue the configuration utility.

Notes



After entering the keycode, the features you purchased are displayed.

Figure 18: Verify Your Keycode Information



Verify the active features related to your keycodes. If the features listed are incorrect, make sure that the keycode and serial number are correct and that the keycode is not an old one that is no longer applicable. Click **Yes** to continue the configuration utility.

Notes



Switch Information

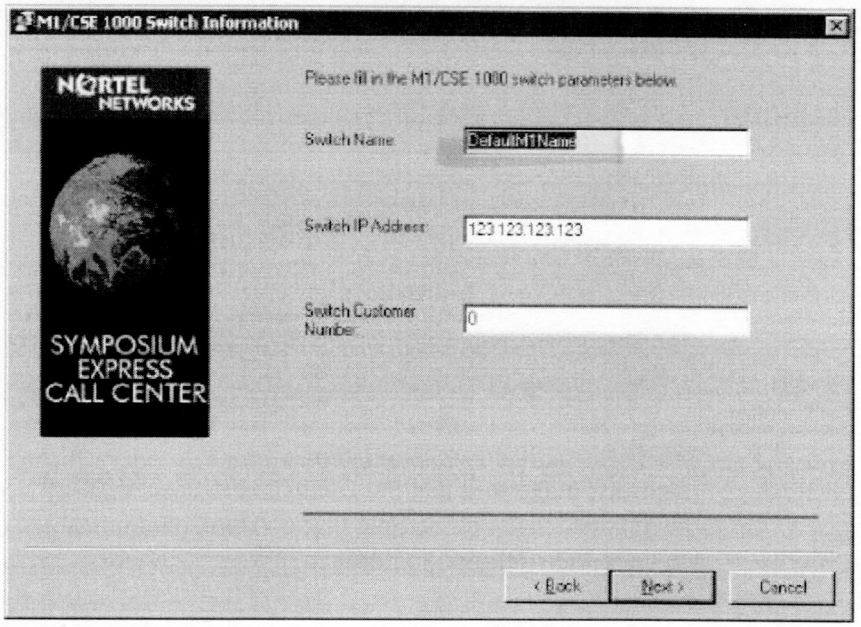
Enter the **Switch Name**, keeping these rules in mind:

Rules: The following restrictions apply to switch names:

- Valid characters for switch names are A-Z, a-z, and 9-0. Do not use an _ (underscore) and . (period), since use of these characters can corrupt Sybase.
- Switch names must begin with an alphabetic character and cannot contain spaces.
- Although the switch software allows up to 80 characters in length for a switch name, the Symposium Express Call Center database Switch Name field allows only 15 characters.

Enter the **Switch IP Address** and **Customer Number**.

Figure 19: The Server Configuration Switch Information Window



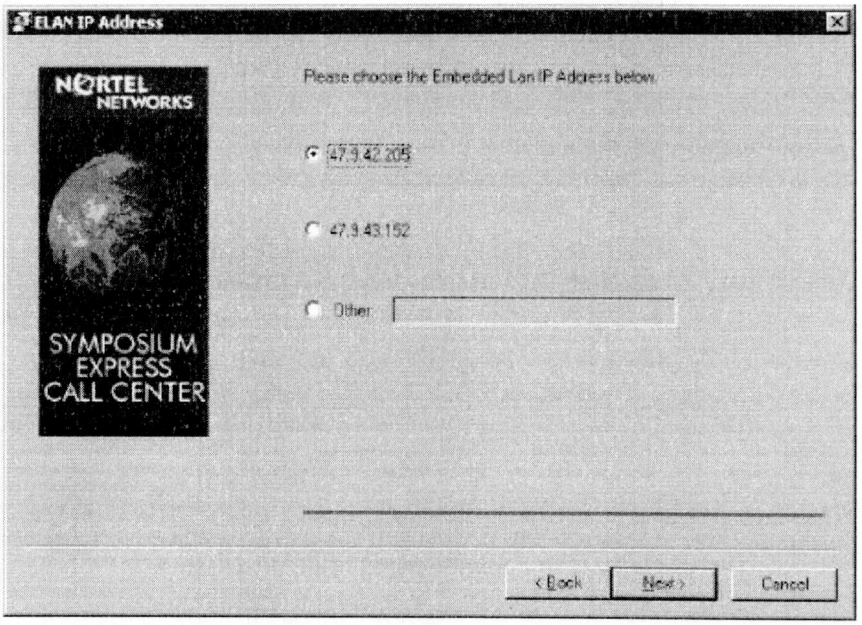
Click **Next** to continue the configuration utility.

ELAN IP Address

The addresses displayed represent the two ports available on the network adapter cards. Select the radio button that corresponds to the appropriate IP address shown for the ELAN.

Caution: *The order of the ELAN and CLAN varies depending on the hardware platform you are installing. Be sure you select the proper adapter for the ELAN and CLAN when configuring them in software.*

Figure 20: The Server Configuration ELAN IP Address Window



Click **Next** to continue the configuration utility.

Notes

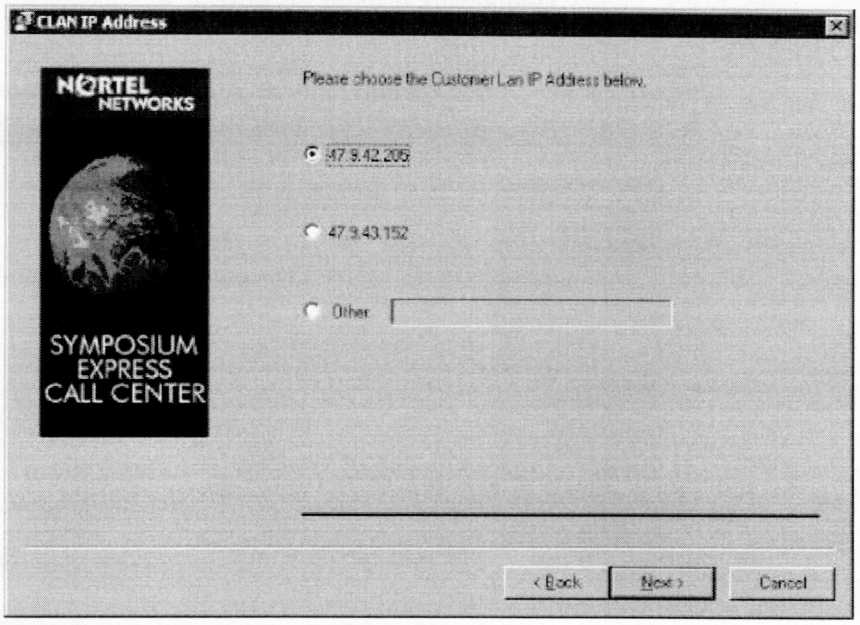


CLAN IP Address

The next window asks for the CLAN IP address. Notice that the ELAN address shows on this screen as well, even though you selected it on the prior screen.

Select the radio button of the appropriate IP address shown for the CLAN for your call center.

Figure 21: The Server Configuration CLAN IP Address Window



Click **Next** to continue the configuration utility.

Notes



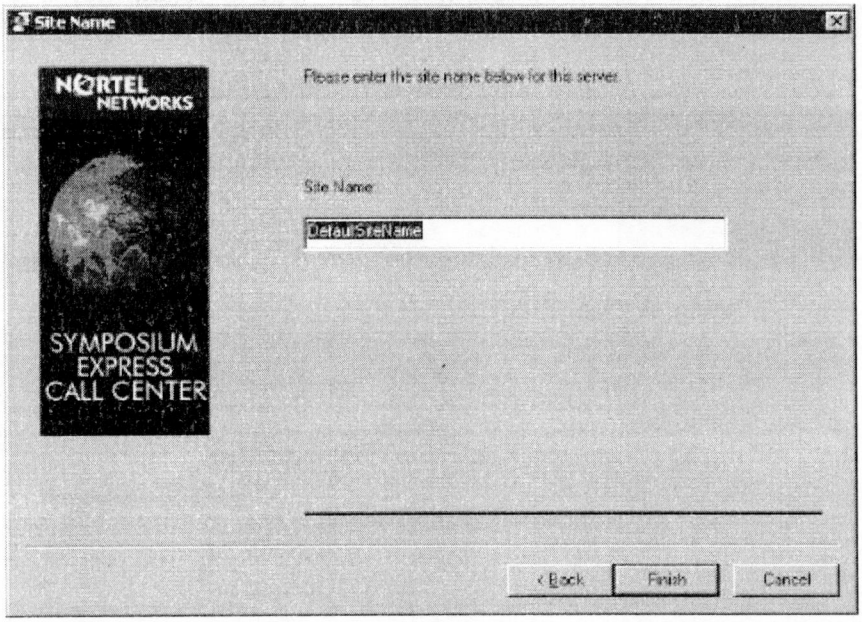
Site Name

Enter the site name for the server, keeping these rules in mind:

Rules: The following restrictions apply to site names:

- Site Name must match the Computer Name and the DNS Host Name
- All characters, except '\' (which is the separator) are acceptable
- Length is 6 to 15 characters

Figure 22: The Server Configuration Site Name Window



To verify that the Site Name matches the Computer Name:

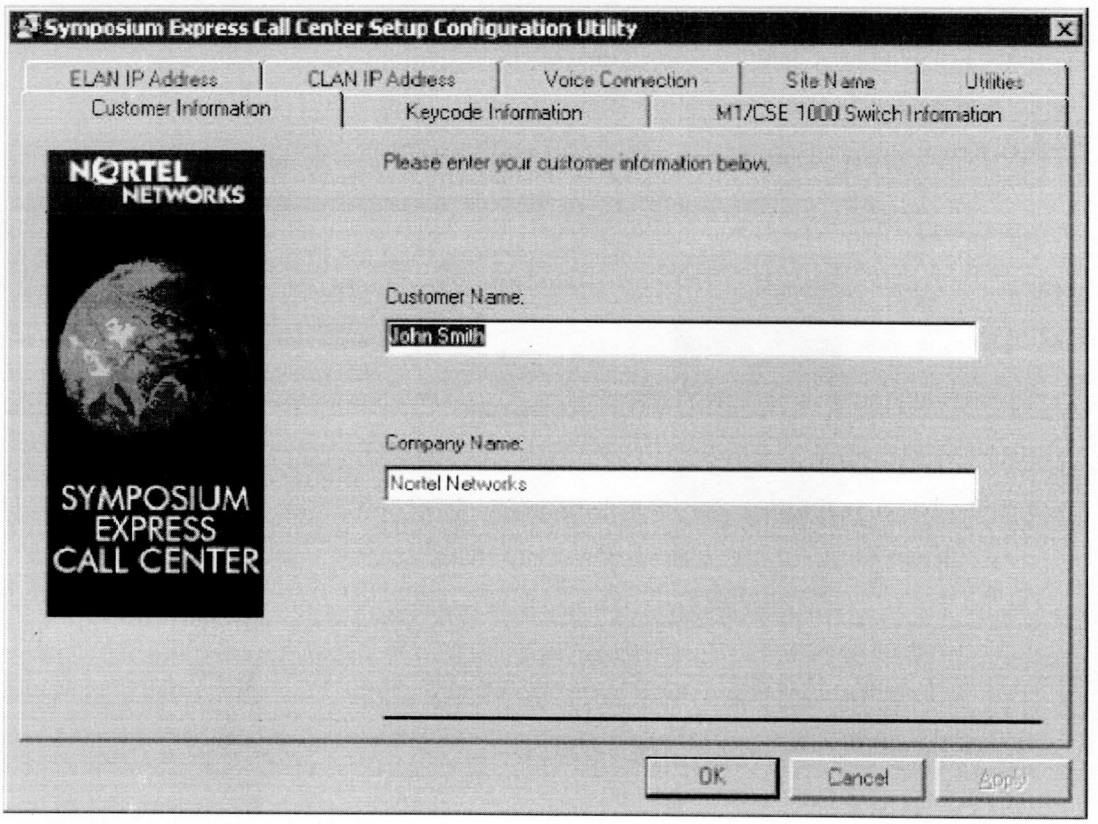
- In the Control Panel window, double-click on **Network**
- Record the Computer Name
- On the same window, click on the **Protocol** tab; then double-click on **TCI/IP Protocol** in the Network Protocols window
- Select the **DNS** tab to see the DNS Configuration window
- Change the DNS Host Name to match the Computer and Site Names (case-sensitive)

Click **Finish** to continue the configuration utility.

The Symposium Express Call Center Setup Configuration Utility

The Symposium Express Call Center Setup Configuration Utility window appears. This window has a tab for each of the configuration windows that you have entered the site-specific information on. It also has a Utilities tab that you will use to import and export configuration data and to create a Platform Recovery Disk.

Figure 23: The Symposium Express Call Center Setup Configuration Utility Window



Verify that the information on each tab is correct. Make changes to any incorrect setting as required.

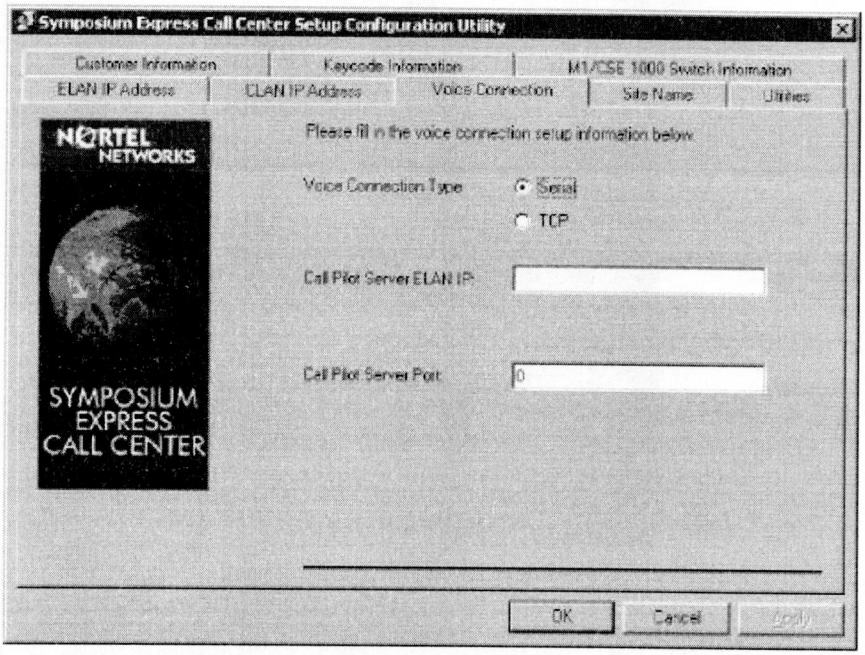
Notes



Voice Connection

You must set the type of connection used to support voice services on the Voice Connection tab. On this tab, you will select either a Serial connection or a TCP/IP connection. Select the **Serial** connection if your call center uses Meridian Mail or a third-party IVR system to play recorded announcements or provide menus for callers. Select **TCP** if your call center uses CallPilot to provide these services.

Figure 24: The Server Configuration Voice Connection Window



If you have selected **Serial** for Meridian Mail or a third-party IVR system, click **OK** to continue the configuration utility.

Notes

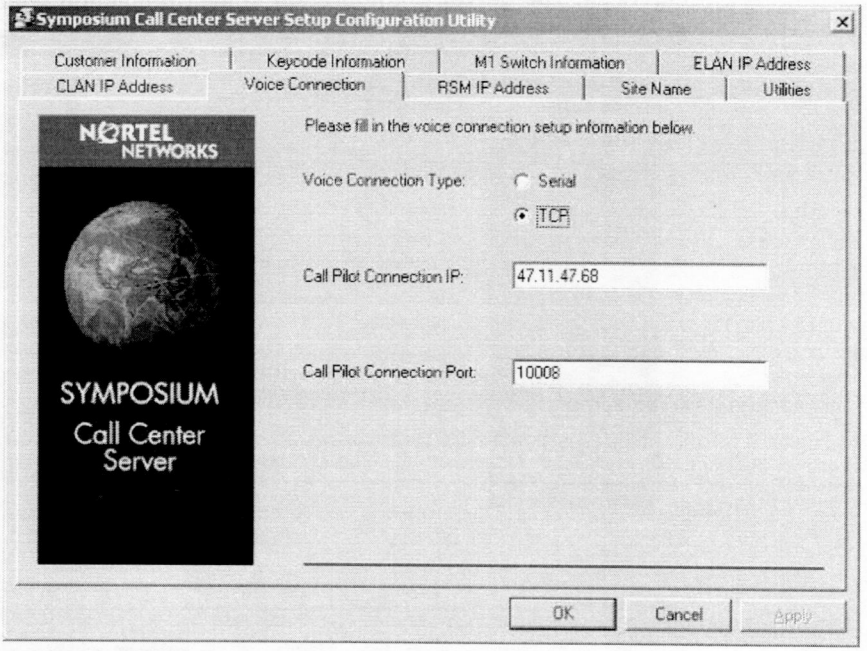


Configuring the Voice Connection Tab for CallPilot

Follow the steps listed below to configure the Voice Connections tab for CallPilot voice services:

- Select **TCP** for Voice Connection Type
- Enter the **CallPilot ELAN IP Address**
- Enter **10008** for the CallPilot Connection Port number

Figure 25: The Server Configuration Voice Connection Window for CallPilot



Note: For detailed instructions and information on implementing CallPilot voice services on the Symposium Express Call Center, refer to "Section A: CallPilot" in the chapter "Configuring the voice processing subsystem" in the *Symposium Express Call Center Planning, Installation, and Administration Guide*.

Click **OK** to continue the configuration utility.

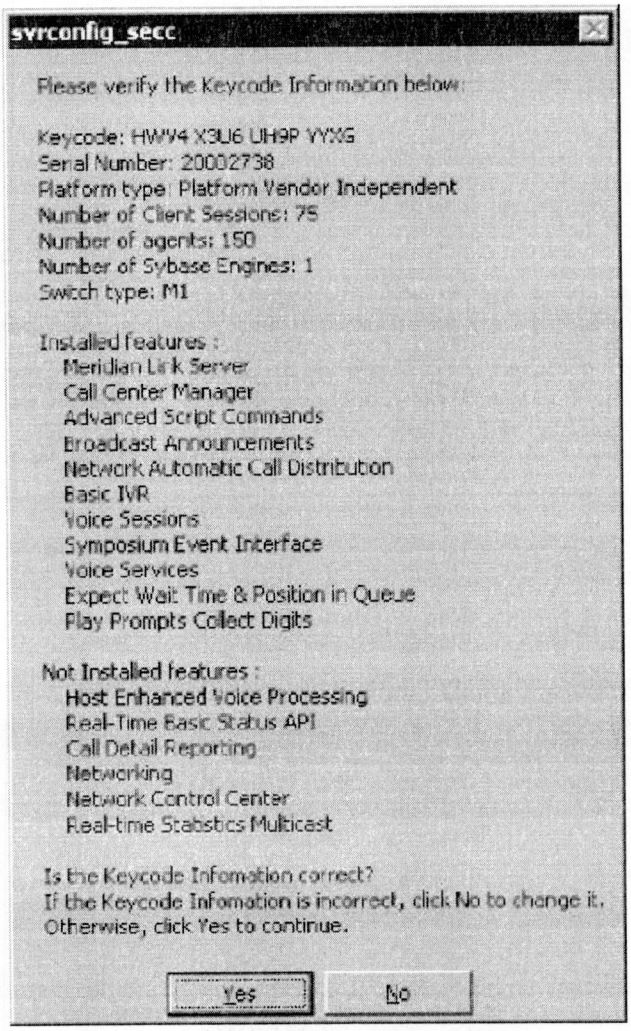
Notes



Finishing the Server and Database Configuration

A dialog box appears, asking you to verify your keycode information again

Figure 26: Verify Your Keycode Information Again



If the keycode information is correct, click **Yes**.

Notes

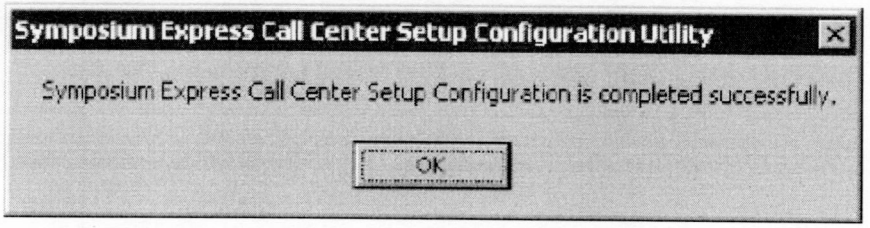


The Server Configuration Utility configures your server database with the site-specific data that you entered. The status of each stage is displayed as the configuration process proceeds. The configuration process can take 20 to 30 minutes to complete, depending on your server's CPU and database size.

Caution: *Do not close any windows during the configuration.*

When the configuration is complete the message shown in the figure below is displayed.

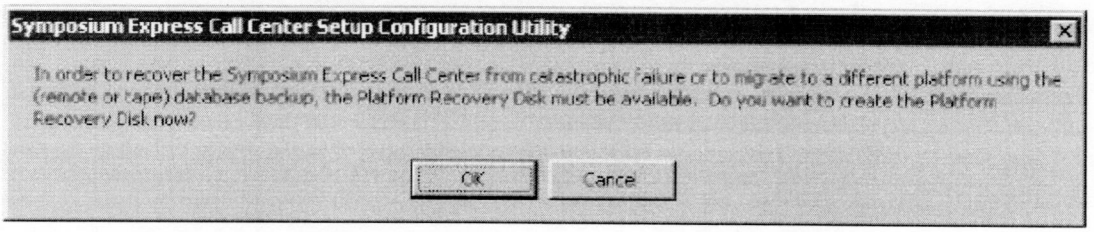
Figure 27: Server Configuration Utility Completed Successfully Message



Click **OK** to continue.

A message opens asking if you want to create a Platform Recovery disk.

Figure 28: Server Configuration Utility Platform Recovery Disk Message



Click **OK** to open the Utilities window and create the Platform Recovery disk

Notes





Practice

Installing the Server Software Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to practice pages that follow.

Select Answer

3. What are the three phases of the Symposium Express Call Center server application software installation?

a. Phase 1: Platform compliance check
Phase 2: Product software installation
Phase 3: Install pcAnywhere

b. Phase 1: Product software installation
Phase 2: Product database installation
Phase 3: Software and database configuration

c. Phase 1: Product database installation
Phase 2: Software and database configuration
Phase 3: Apply the Most Current PEPs and SUs

d. Phase 1: Product software installation
Phase 2: Apply the Most Current Install-time PEP
Phase 3: Create a Platform Recovery disk

Select Answer

4. The installation program uses the serial number and keycode of the software to allow you to verify the features that you have purchased.

a. True

b. False

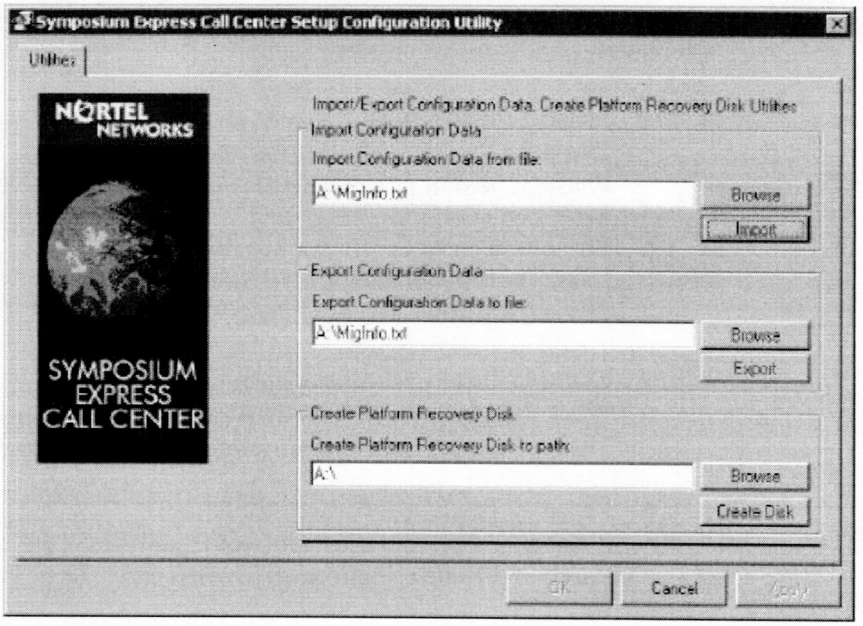
reset

Platform Recovery Disk Creation

A Platform Recovery disk is required when a full system recovery must be performed using a database backup. Nortel Networks recommends that you create a Platform Recovery disk during installation, upgrade, or major modifications to the system. The disk you use must be blank and formatted.

Tip: *You can also save Platform Recovery disk data to a mapped remote directory on a shared network drive.*

Figure 29: The Server Configuration Utilities Window



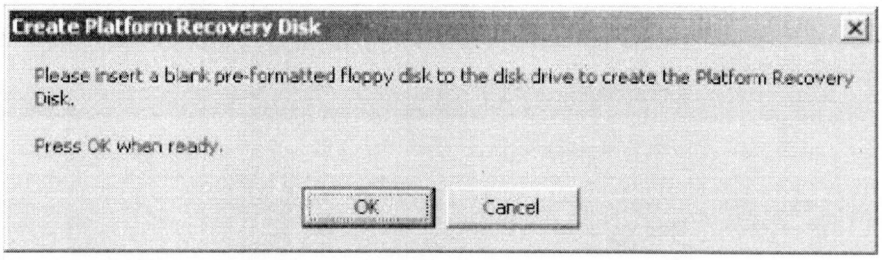
The Utilities tab contains three separate functions:

- Import Configuration Data from file
- Export Configuration Data to file
- Create Platform Recovery Disk

To create the Platform Recovery disk, insert the blank disk into the A: floppy disk drive and click **Create Disk**. An insert blank disk message is displayed as shown in the following figure.

From the Create Platform Recovery Disk dialog on the Utilities tab of the Symposium Express Call Center Setup Configuration Utility

Figure 30: Create Platform Recovery Disk Message



After you have inserted the blank pre-formatted floppy disk in the A: drive, click **OK** to continue.

Wait until the following message appears:

Figure 31: Setup Configuration Data Message



Click **OK** to continue. The following message opens.

Figure 32: Platform Recovery Disk Message



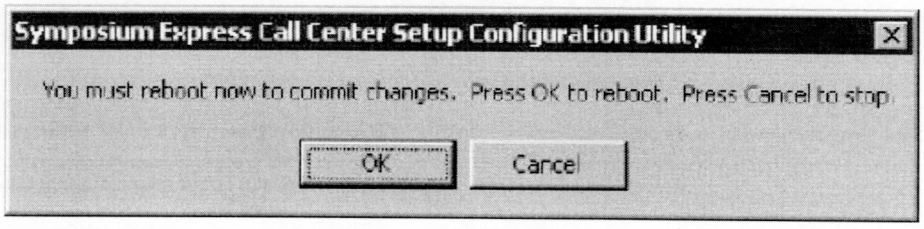
Remove the Platform Recovery disk and store it in a safe place. Click **OK** to continue.

Notes



A Setup Configuration Utility reboot message opens.

Figure 33: Setup Configuration Utilities Reboot Message



Click **OK** to reboot the server or proceed to installing the latest SU or PEP.

Notes



PEP Installation

You must install the latest Service Update (SU) pack and any required Product Enhancement Packages (PEPs) after the completion of the server software installation and configuration. PEPs are software updates that are installed on the Symposium Express Call Center server or client applications to ensure that your Symposium Express Call Center is fully operable. Refer to the chapter titled "Installing/uninstalling PEPs and Service Update packs" in the *Symposium Express Call Center Planning, Installation, and Administration Guide* for detailed information.



Tip: *You must be logged in to the NGenSys account on the Symposium Express Call Center server to install PEPs or SUs.*

You can obtain PEPs and Service Update packs from the Meridian PEP Library Web site. If you do not have access to this site, contact your Nortel Networks Customer Support representative. Any Service Update packs and PEPs that are available at the time of shipping are included on the Symposium Express Call Center Supplementary CD shipped with your software.

Note: The following rules apply to installing PEPs or SUs to the Symposium Express Call server application software.

- If known server PEPs are installed on the system, a Known PEPs Found message appears. You may be prompted to uninstall the known PEPs.
- If unidentified server PEPs are installed on the system, an Unknown PEPs Found message appears. You must uninstall the unknown PEPs before you can install a new PEP. Click **Cancel** to exit the installation, remove the unknown PEPs, and restart the installation.
- If an older version of a server SU is installed on the system, an Older Version of SU Found message appears. The older SU is automatically uninstalled when the new SU is installed.
- If a newer version of a server SU is installed on the system, a Newer Version of SU Found message appears. The installation is canceled.

Notes

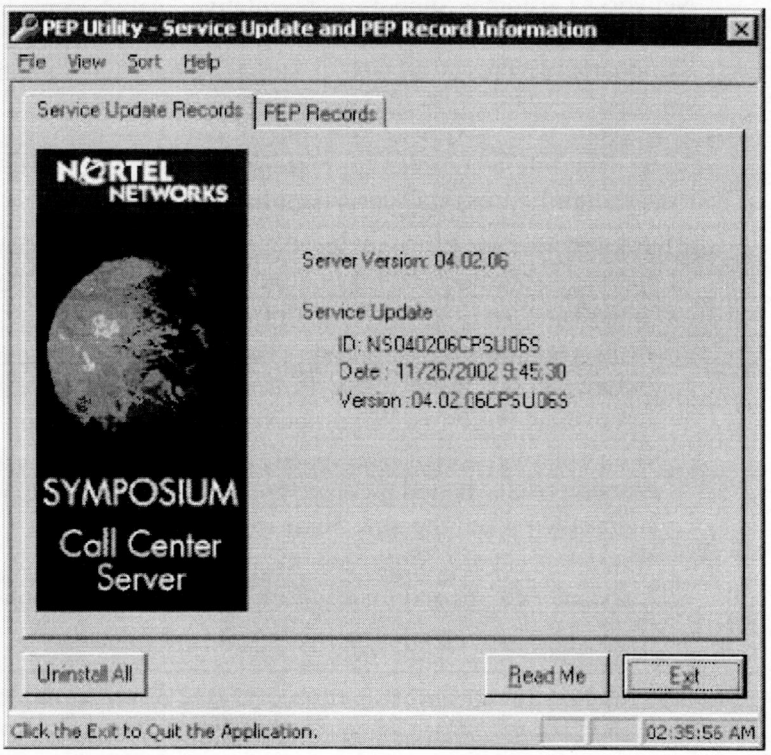


The PEP Viewer Utility

The PEP Viewer utility allows the administrator to view a list of all PEPs and SUs that have been installed on the Symposium Express Call Center server. Use this utility before installing a new PEP or SU to verify that it has not already been installed. You can also use the PEP Viewer utility to remove all PEPs and SUs installed on the server. Use this feature when you are installing new PEPs and SUs on the system and need to remove all existing PEPs and SUs. You cannot use the PEP Viewer utility to remove specific PEPs or SUs. To remove a specific PEP or SU, you must use the Windows Add/Remove Programs utility.

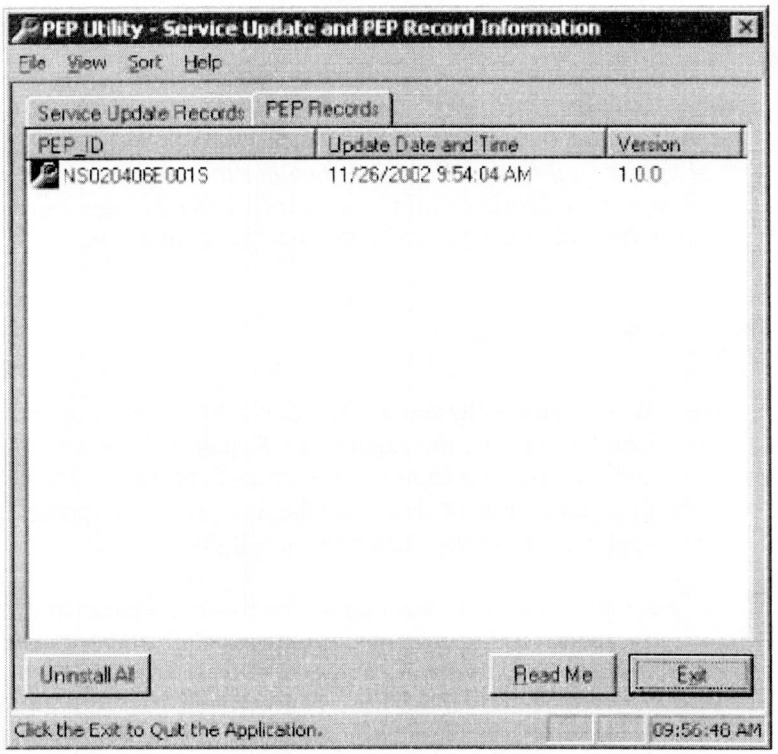
To start the PEP viewer utility, click on **Start**, **Programs**, **Symposium Express Call Center**, and then **PEP Viewer**. The PEP Utility – Service Update and PEP Record Information window opens as shown in the following figure.

Figure 34: The Service Update Records Tab of the PEP Utility



The Service Update Records tab shows the version of the server application software and the current SU.

Figure 35: The PEP Records Tab of the PEP Utility



The PEP Records tab lists all PEPs currently installed on the server application software and provides the ability to uninstall all of these PEPs.

Notes





Practice

Installing the Server Software Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide.* Verify your answers with the Answers to practice pages that follow.

Select Answer

5. When you configured the Windows 2000 Server operating system you learned to create the Emergency Repair disk by accessing System Tools and then Backup from the Windows Start menu. How do you create the Emergency Repair disk after the Symposium Express Call Center server application software has been installed?

   a. By clicking on Backup on the System Administration drop-down menu on the Symposium Express Call Center client window

   b. By clicking on the Emergency Repair Disk button on the Welcome tab of the Backup Utility accessed from System Tools and the Window Start menu

   c. By clicking on the Create Disk button in the Create Platform Recovery Disk dialog on the Utilities tab of the Symposium Express Call Center Setup Configuration Utility

   d. You do not create an Emergency Repair disk after the Symposium Express Call Center server application software has been installed

Select Answer

6. Which user account must you be logged in to when you apply Product Enhancement Packages (PEPs) or Service Updates (SUs) to the Symposium Express Call Center server application software?

   a. NGenSys

   b. SysAdmin

   c. Supervisor

   d. Administrator

reset



Answers to Practice

Installing the Server Software Questions

Check your answers to the practice.

1. On which of the following listed CD-ROMs required to complete the Symposium Express Call Center installation contains the Platform Compliance Check utility?

   a. Symposium Express Call Center Release 4.2 Documentation CD-ROM

   b. Symposium Express Call Center Release 4.2 Supplementary CD-ROM

   c. Symposium Express Call Center Release 4.2 Server Application CD-ROM

   d. Symposium Express Call Center Release 4.2 Client Application CD-ROM

2. What site-specific information is required prior to installation?

   a. The IP addresses for the CLAN and ELAN

   b. The Meridian 1 switch Name, IP address, type, and customer number

   c. The Site Name, Customer Name, and Company for the system

   d. All of the above

3. What are the three phases of the Symposium Express Call Center server application software installation?

   a. Phase 1: Platform compliance check
      Phase 2: Product software installation
      Phase 3: Install pcAnywhere

   b. Phase 1: Product software installation
      Phase 2: Product database installation
      Phase 3: Software and database configuration

   c. Phase 1: Product database installation
      Phase 2: Software and database configuration
      Phase 3: Apply the Most Current PEPs and SUs

   d. Phase 1: Product software installation
      Phase 2: Apply the Most Current Install-time PEP
      Phase 3: Create a Platform Recovery disk

4. The installation program uses the serial number and keycode of the software to allow you to verify the features that you have purchased.

   a. True

   b. False

5. When you configured the Windows 2000 Server operating system you learned to create the Emergency Repair disk by accessing System Tools and then Backup from the Windows Start menu. How do you create the Emergency Repair disk after the Symposium Express Call Center server application software has been installed?

   a. By clicking on Backup on the System Administration drop-down menu on the Symposium Express Call Center client window

   b. By clicking on the Emergency Repair Disk button on the Welcome tab of the Backup Utility accessed from System Tools and the Window Start menu

   c. By clicking on the Create Disk button in the Create Platform Recovery Disk dialog on the Utilities tab of the Symposium Express Call Center Setup Configuration Utility

   d. You do not create an Emergency Repair disk after the Symposium Express Call Center server application software has been installed

6. Which user account must you be logged in to when you apply Product Enhancement Packages (PEPs) or Service Updates (SUs) to the Symposium Express Call Center server application software?

   a. NGenSys

   b. SysAdmin

   c. Supervisor

   d. Administrator



Skill check

Installing the Server Software

Install the Symposium Express Call Center server application software using the CD-ROMs provided by your instructor, the Classroom Resource Sheet, and Installation Worksheets. You may use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide* as reference material for this Skill Check.

If the equipment is not available, write out the procedures that you need to follow to complete the tasks.

The installation process covers the following steps:

- Gather the materials and information required
- Log on to the server as Administrator
- Insert the Symposium Express Call Center Server Application CD NTHF01AD
- Perform a platform compliance check on your server
- Install the product software (Phase 1)
- Apply the most current Install-time PEP
- Install the product database (Phase 2)
- Configure the software and database (Phase 3)
  - Enter the Customer Information
  - Enter the Keycode Information
  - Verify that the features identified by the keycode match the features purchased
  - Enter the Switch Information
  - Enter ELAN IP address
  - Enter CLAN IP address
  - Enter Site Name

Note: Be sure to enter the site name to precisely match the computer name and DNS host name.

  - Review site specific information on the Setup Configuration Utility
  - Enter Voice Connection Information
- Create the Platform Recovery disk
- Install the latest PEPs and SU



Skill Check Feedback

Installing the Server Software

Step	Server Application Software Installation	V
1.	Gather the materials and information required: Installation CD-ROMs Preformatted blank diskette for Platform Recovery disk Classroom Resources Sheet Configuration Worksheets *Symposium Express Call Center Planning, Installation, and Administration Guide*	
2.	Log on to server as Administrator	
3.	Insert Symposium Express Call Center Server Application CD NTHF01AD	
4.	Perform platform compliance check on server	
5.	Install product software (Phase 1)	
6.	Apply latest Install-time PEP	
7.	Install the product database (Phase 2)	
8.	Configure software and database (Phase 3) Enter the Customer Information Enter the Keycode Information Verify that the features identified by the keycode match the features purchased Enter the Switch Information Enter ELAN IP address Enter CLAN IP address Enter Site Name Review site specific information on the Setup Configuration Utility Enter Voice Connection Information	
9.	Create the Platform Recovery disk	
10.	Install the latest PEPs and SU	

Summary

In this lesson you learned how to install the Symposium Express Call Center server application software on a PC that you prepared. Each step in the installation process was explained in detail and is available for your reference. In the next lesson you will learn to install the Symposium Express Call Center client application that is loaded both co-resident on the server PC and also separately on client PCs, as required for your location.

Installing the Client Software

Introduction

The Symposium Express Call Center client application is a required component of Symposium Express Call Center. All database configuration and call center functions are performed from the client. The client application is always loaded co-resident with the Symposium Express Call Center server application on the server PC. You can also load the software on stand-alone client PCs that are installed on the customer's LAN (CLAN).

This lesson provides instruction on how to load the Symposium Express Call Center client application software as both a co-resident client on the server PC and a stand-alone client on customer PCs on the CLAN. Hands-on practices for both types of installation are provided.

Objective

At the conclusion of this lesson, given your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*, you will be able to perform the following tasks:

- Install the Symposium Express Call Center client application software as a co-resident on the PVI server where you previously installed the server application
- Install the Symposium Express Call Center client application software on a stand-alone client PC

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Installing the Software"		

Client Installation Requirements

You must gather the software, equipment, and information that you will need for the client installation and ensure that the computers where the client application software will be installed meet Nortel Networks minimum specifications.

Minimum Client PC Specifications

The following table lists the minimum requirements for a customer supplied computer that will run the Symposium Express Call Center client application software. Please note that these are minimum specifications. Computers that exceed the minimum requirements will improve system performance.

Table 1: Client PC Specifications

PC Component	Minimum Specification
Processor	166 MHz Pentium II or higher
Random Access Memory (RAM)	64 Mbytes RAM recommended minimum (more memory generally improves responsiveness)
Hard Disk Space	2 Gbyte hard drive with a minimum of 350 Mbytes of free space (actual space required depends on options installed)
Color Monitor	SVGA monitor: • 14" (a 15" or 17" monitor is optional) • 1024 x 768 minimum display setting • 256 or greater displayed colors
CD-ROM	4x minimum speed
Floppy Disk Drive	3.5 inch 1.44 MB
I/O devices	Windows compatible mouse and a keyboard
Network Card	Ethernet Network Interface Card (NIC) card

A printer must be configured, but it does not have to be physically attached to the PC.

Notes



Supported Operating Systems

The Symposium Express Call Center client application installed as the co-resident client on the Symposium Express Call Center server requires one of the following operating systems:

- Window 2000 server
- Windows 2000 Advanced Server



Tip: *Local Administrator access is required to install the co-resident client on Windows 2000 Server or Windows 2000 Advanced Server.*

The Symposium Express Call Center client application installed as a stand-alone client on the CLAN requires one of the following operating systems:

- Windows 2000 Professional (Service Pack 3)
- Windows XP Professional (Service Pack 1)



Tip: *To check your Windows 2000 version, from the Windows desktop, right-click on the* ***My Computer*** *icon and choose* ***Properties****. The current version of the Windows operating system is displayed on the General tab of the System Properties page.*



Tip: *To check the Windows XP version, click* ***Start****,* ***My Computer****, and then select* ***View System Information****. The current installed version of the Windows operating system is displayed on the General tab of the System Properties page.*

Notes



Required Third-party Software

The following software must be installed to support the Symposium Express Call Center client application on both the co-resident and the stand-alone client:

- Internet Explorer 5.5 or later installed (Windows XP is installed with Internet Explorer 6.0)
- Microsoft TCP/IP protocol installed and configured for the CLAN NIC card
- Adobe Acrobat Reader is required to view online documentation that is provided with your Symposium Express Call Center



Tip: *If you do not have Internet Explorer 5.5 or later installed, you will not be able to install the Symposium Express Call Center client application.*



Caution: *A PC running the Symposium Express Call Center client application must use Microsoft TCP/IP. TCP/IP from other vendors will not work with Symposium Express Call Center.*

Required Installation Software

The following software must be available to perform the client installation tasks:

- Symposium Express Call Center Release 4.2 Client Application CD NTHF02AD
- Symposium Express Call Center Release 4.2 Supplementary CD NTHF04AD (if supplied)

Note: If no Supplementary CD is supplied, you must download any required client PEPs or Service Update packs from the Meridian PEP Library. For more information, contact your Nortel Networks customer support representative.

Notes





Practice

Installing the Client Software Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow the questions.

Select Answer

1. The Symposium Express Call Center stand-alone client application can be loaded on the _____ operating system.

   a. Windows 95/98

   b. Windows NT 4.0 Server or Workstation

   c. Windows XP professional

   d. Windows 2000 professional

Select Answer

2. The client PC must be running Microsoft TCP/IP and not a TCP/IP from another Vendor.

   a. True

   b. False

reset

Select Answer

3. Internet Explorer 5.5 or later must be installed on the client PC for the Symposium Express Call Center client application to function.

a. True

b. False

reset

Install the Co-resident Client

Nortel Networks recommends that you install the co-resident client software on the C:\ partition of the Symposium Express Call Center PVI server. You must not install the co-resident client application on the following partitions:

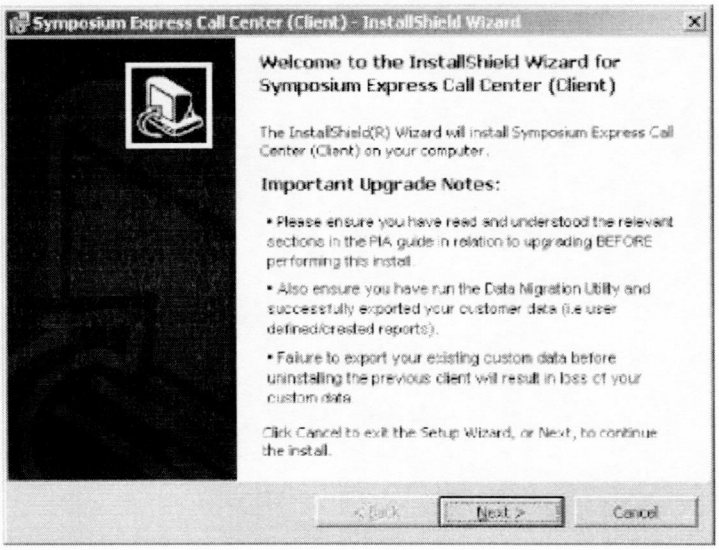
- The D:\ partition, which contains the server software
- The F:\ partition, or any additional database partitions

Co-resident Client Installation Procedure

Follow the steps below to install the Symposium Express Call Center client application software as the co-resident client on the PVI server:

- Log on to the server PC as the local Administrator.
- Exit all applications and close all windows except for the MAS Trace window. If the MAS Trace window is open, it can remain open but must be minimized.
- Insert the Symposium Express Call Center Release 4.2 Client Application CD NTHF02AD into the CD-ROM drive. The Setup program should start automatically. If the Setup program does not start, click **Start**, **Run**, and then **Browse**. Browse to the Setup.exe file from the root directory on the CD. Click **OK** to run. The InstallShield Wizard opens.

Figure 1: The InstallShield Wizard Window

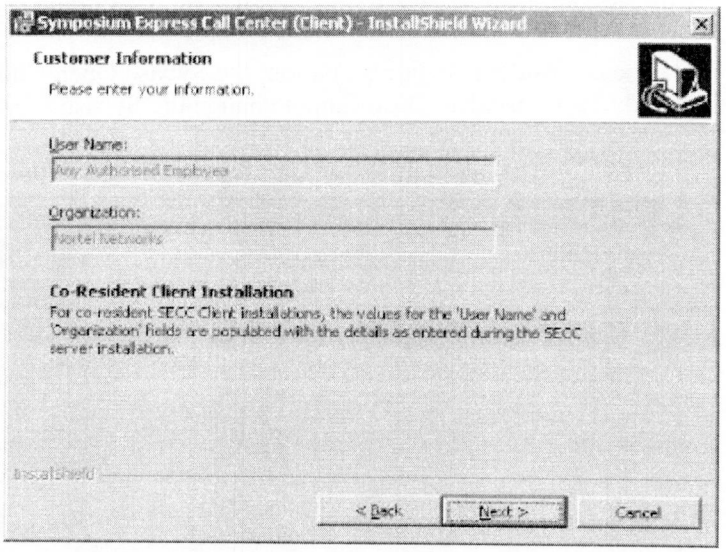


Click **Next** to continue the co-resident client installation.

Customer Information

For the co-resident client installation, the values for User Name and Organization are prefilled with information entered during the server application installation and are grayed out.

Figure 2:The InstallShield Wizard Customer Information Window



Click **Next** to continue the co-resident client installation.

Notes

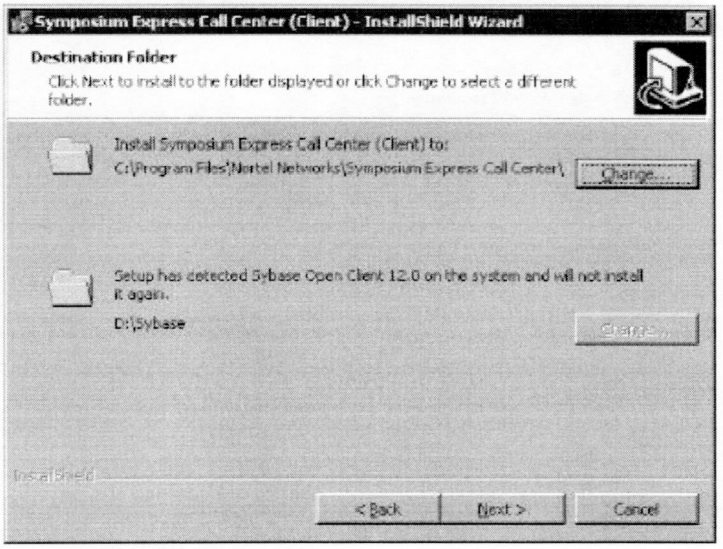


Destination Folder

You can select the folder on the PVI server where the client application software will be installed. Remember that you cannot install the co-resident client on the D:\ partition, which contains the server software, the F:\ partition, which is used for the database, or any other database partition. To change the location that Symposium Express Call Center client application software will load, click **Change** and then browse to the desired location.

For the co-resident client installation, the Sybase Open Client software has already been installed. You cannot change the Sybase file location.

Figure 3: The InstallShield Wizard Destination Folder Window



Click **Next** to continue the co-resident client installation.

Notes



Ready to Install

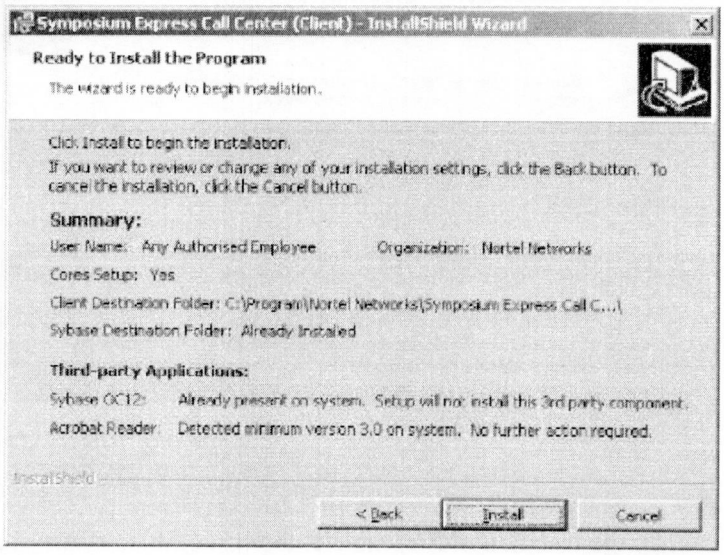
Verify that all options shown in the Summary section of the Ready to Install the Program window are correct. If you need to make any changes, click on **Back** to go to the appropriate wizard window and make the corrections.

The Third-party Applications section identifies whether Sybase Open Client and Adobe Acrobat Reader are present on the PC.

For the co-resident client installation, the Sybase Open Client is present because it is installed as part of the server software.

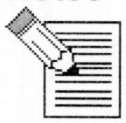
If Adobe Acrobat Reader is not present, you must install it later. It is required for you to be able to read the customer documentation. The Acrobat software is on the client CD at e:\acrobat\setup.exe, where e:\ is your CD-ROM drive letter.

Figure 4: The InstallShield Wizard Ready to Install the Program Window



Click **Install** to continue the co-resident client installation.

Notes



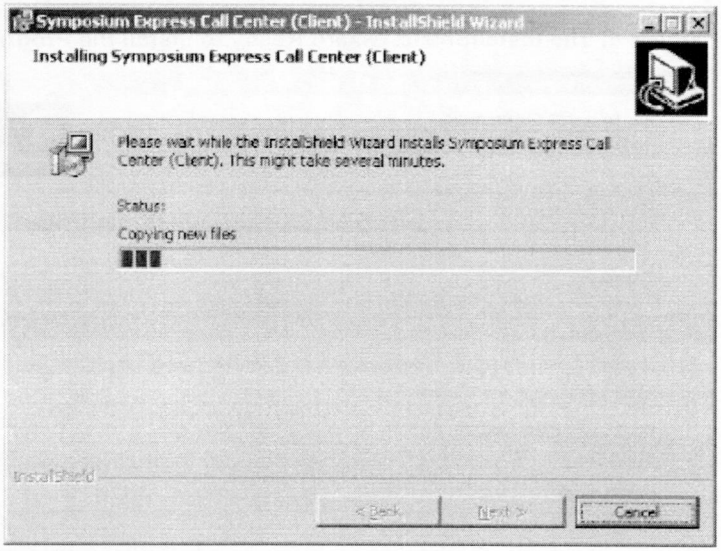
Installing the Client Application

The client installation process takes approximately 10 minutes. Installation details, status messages, and a status bar track the progress of the installation.

Tip: *If there is not enough free space available in the destination folder to complete the client installation, the system displays warning message. You must select a different location to install the client software.*

The system displays a warning message that you must select a different location to install the client software

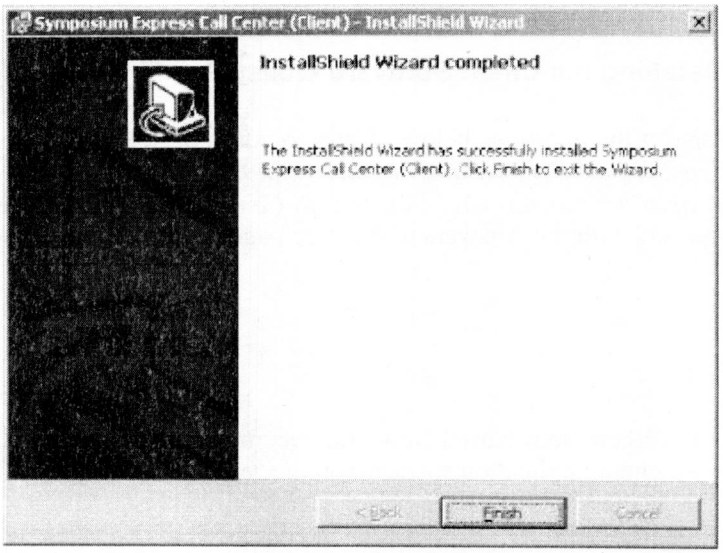
Figure 5: The InstallShield Wizard Installing Window



When the installation is complete, the InstallShield Wizard completed window appears as shown in the following figure.

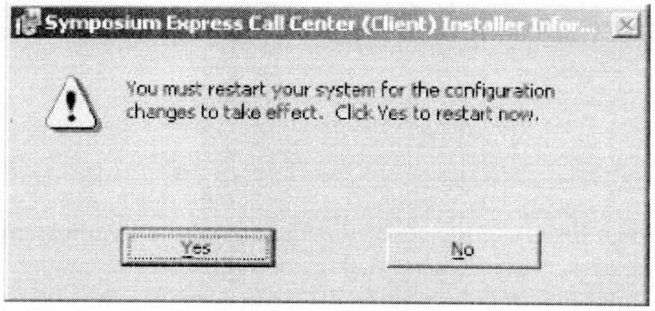
Notes

Figure 6: The InstallShield Wizard Completed Window



Click **Finish** to complete the client application co-resident installation process. You are then prompted to reboot the server PC.

Figure 7: The Client Installer Information Restart Your System Message



Click **Yes** to reboot the server. When the server reboots, the co-resident client installation is complete.

At the logon prompt, log on as NGenSys. You can monitor the Symposium Express Call Center services on the System Monitor utility (SMonW). This utility will be covered in detail later in this course.

Notes





Practice

Installing the Client Software Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow the questions.

Select Answer

4. Where does Nortel Networks recommend that you install the co-resident client application software on the Symposium Express Call Center PVI server?

- a. On the C:\ partition
- b. On the D:\ partition
- c. On the F:\ partition
- d. On any database partition

Select Answer

5. When installing the co-resident client on the Symposium Express Call Center server PC, what will occur if there is not enough free space available in the destination folder to complete the client installation?

- a. The installation program aborts the installation and displays a failure code of CS0781
- b. The system displays a warning message that critical files will be overwritten if the client installation continues
- c. The system displays a warning message that you must select a different location to install the client software
- d. The installation program automatically reallocates the required disk space from any hard drive partition with free space available

reset

Install the Stand-alone Client

Caution: *If you have upgraded your Symposium Express Call Center Server, you must also upgrade your Client. A Client of a previous release will not connect to a later release Server.*

Caution: *The Symposium Express Call Center client application cannot coexist on a computer with any of the following applications:*
- Any earlier versions of the Symposium Express Call Center client application
-Any version of the Symposium Call Center Server client application

Caution: *The Symposium Express Call Center client application uses a proprietary version of Sybase Open Client software. You must not install the client application software on a PC that has any version of SYBASE installed. Remove any SYBASE application, such as SQL Server 7, prior to installing the client software.*

Tip: *The server keycode determines the number of clients that can simultaneously connect to the server. The number of installed clients can exceed the number of licensed clients but only the licensed number can connect to the server at any one time.*

Tip: *If the stand-alone client PC is going to run Crystal Reports, this software must be loaded before you install the Symposium Express Call Center client application.*

Notes



Uninstall the Software Development Kit (SDK)

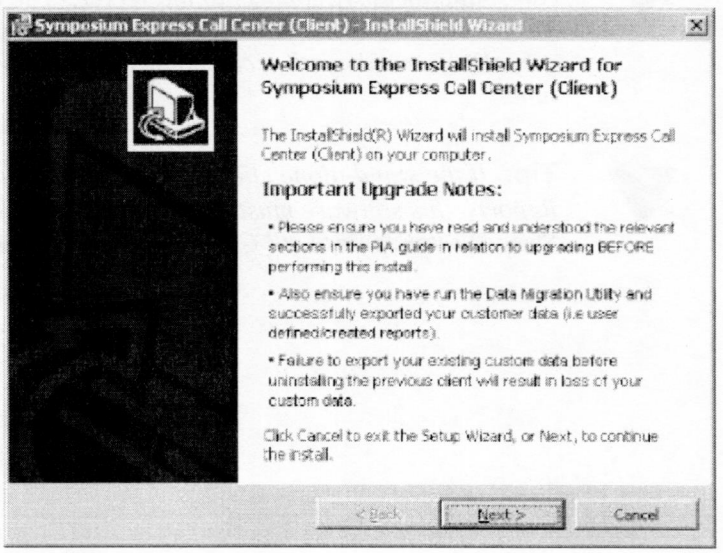
The Software Development Kit (SDK) and Symposium Express Call Center client application software cannot reside on the same client PC. To check whether the SDK is installed and how to uninstall it, use the procedures located in the "Uninstalling the Software Development Kit" section in the "Stand-alone client software" chapter of the *Symposium Express Call Center Planning, Installation, and Administration Guide.*

Stand-alone Client Installation Procedure

Follow the steps below to install the Symposium Express Call Center client application software as the stand-alone client on a Windows 2000 Professional or Windows XP Professional client PC:

- Log on to the client PC as the local Administrator.
- Exit all applications and close all windows.
- Insert the Symposium Express Call Center Release 4.2 Client Application CD NTHF02AD into the CD-ROM drive. The Setup program should start automatically. If the Setup program does not start, click **Start**, **Run**, and then **Browse**. Browse to the Setup.exe file from the root directory on the CD. Click **OK** to run. The InstallShield Wizard opens.

Figure 8: The InstallShield Wizard Window

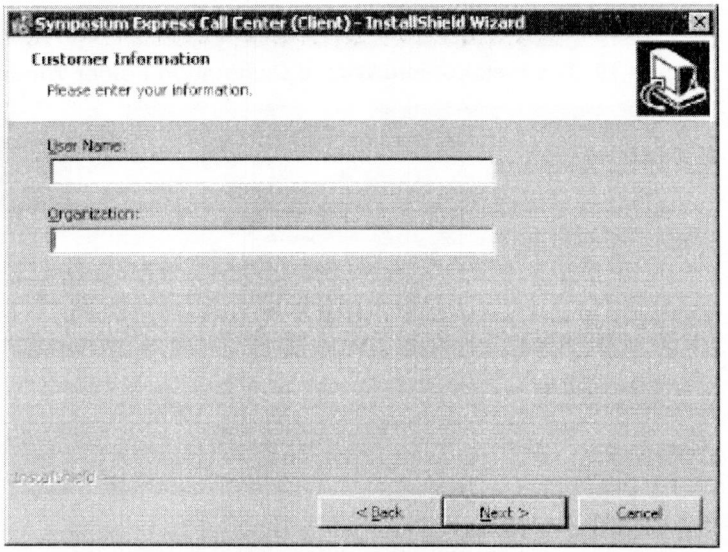


Click **Next** to continue the stand-alone client installation.

Customer Information

For the stand-alone client installation, you must enter the **User Name** and **Organization**.

Figure 9:The InstallShield Wizard Customer Information Window



Click **Next** to continue the stand-alone client installation.

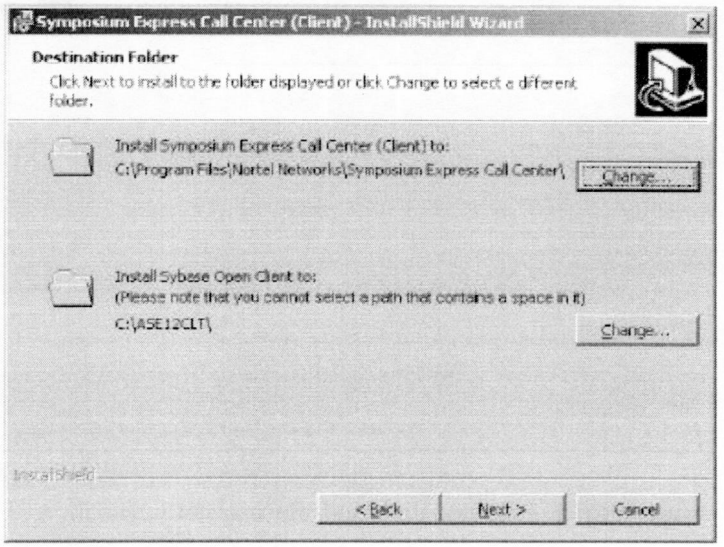
Notes



Destination Folder

For the stand-alone client installation, you can select the location on the client PC where the client application software and the Sybase Open Client software will be installed. To change the location where either of these applications will install, click the appropriate **Change** button, and then browse to the desired location.

Figure 10: The InstallShield Wizard Destination Folder Window



Click **Next** to continue the stand-alone client installation.

Notes



Ready to Install

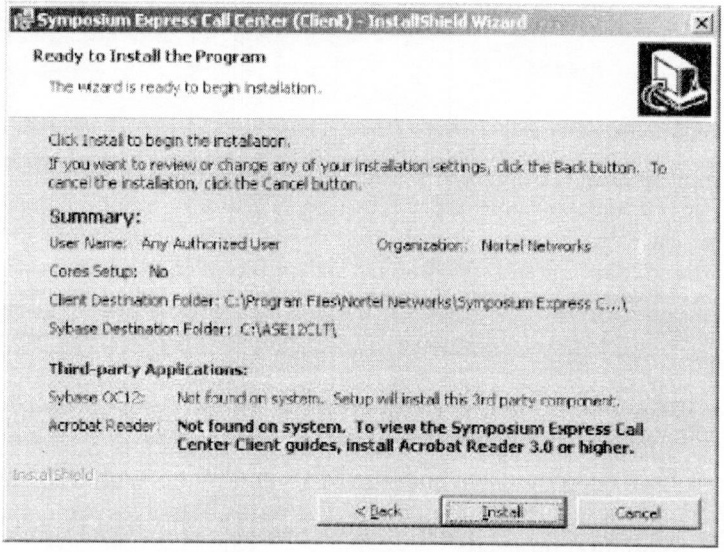
Verify that all options shown in the Summary section of the Ready to Install the Program window are correct. If you need to make any changes, click on **Back** to go to the appropriate wizard window and make the corrections.

The Third-party Applications section identifies whether Sybase Open Client and Adobe Acrobat Reader are present on the PC.

If the Sybase Open Client is not present, it will be installed automatically as part of the client installation.

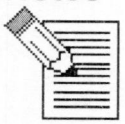
If Adobe Acrobat Reader is not present, you must install it later. It is required for you to be able to read the customer documentation. The Acrobat software is on the client CD at e:\acrobat\setup.exe, where e:\ is your CD-ROM drive letter.

Figure 11: The InstallShield Wizard Ready to Install the Program Window



Click **Install** to continue the stand-alone client installation.

Notes



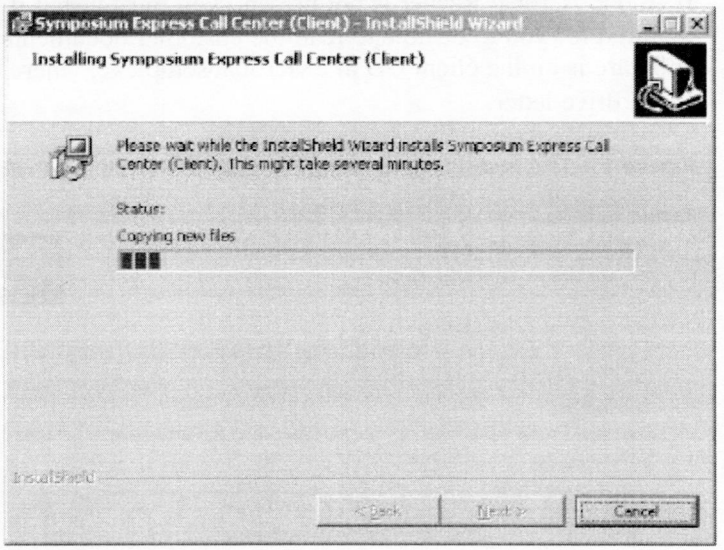
Installing the Client Application

The client installation process takes approximately 10 minutes. Installation details, status messages, and a status bar track the progress of the installation.



Tip: *If there is not enough free space available in the destination folder to complete the client installation, the system displays a warning message. You must select a different location to install the client software.*

Figure 12: The InstallShield Wizard Installing Window



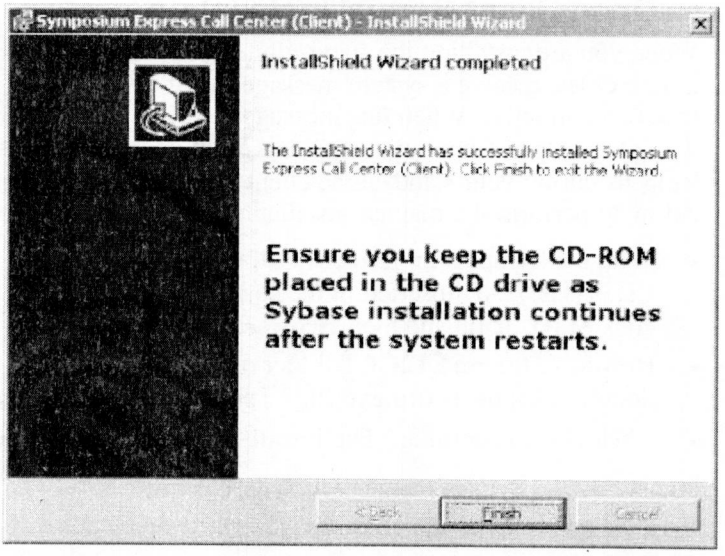
When the InstallShield wizard finishes copying files for the Symposium Express Call Center client application installation, it installs the Sybase Open Client and populates both the MAS and Symposium Express Call Center databases. Installation details and status messages are displayed as the installation proceeds.

When the installation is complete, the InstallShield Wizard completed window appears as shown in the following figure.

Notes

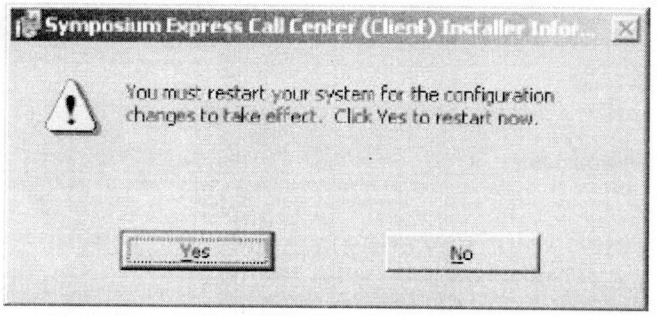


Figure 13: The InstallShield Wizard Completed Window



Click **Finish** to complete the first part of the stand-alone client installation process. You are then prompted to reboot the server PC.

Figure 14: The Client Installer Information Restart Your System Message



Click **Yes** to reboot the server. When the computer restarts, the first part of the stand-alone client installation is completed.

Log on to the stand-alone client PC as the Administrator, just as before. The system will configure the Sybase Open Client. Once Sybase is configured, the stand-alone client is fully installed.

Notes

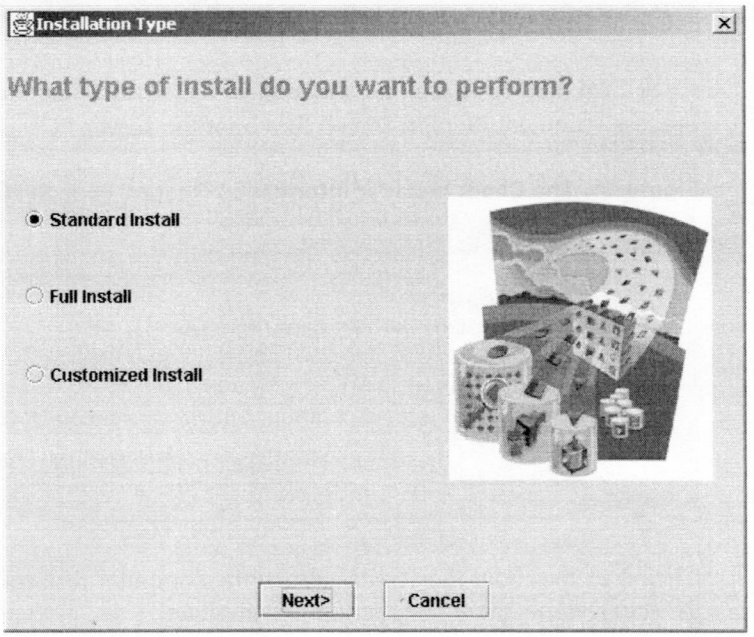


Sybase Open Client Manual Installation

When you are installing the stand-alone client application software, you may, in rare cases, receive a system message that the Sybase Open Client has not installed correctly. When this message displays, you are prompted to install the Sybase Open Client manually and rerun the client installation. If this happens during your stand-alone client installation, follow the procedure below to perform the manual installation:

- With the Symposium Express Call Center Release 4.2 Client Application CD NTHF02AD inserted in the stand-alone client PC's CD-ROM drive, click **Start**, **Run**, and then **Browse**.
- Browse to the **ASE12CLT** folder on the Client Application CD and double-click the **setup.exe** file. The Run window opens.
- Click **OK** to continue. The Installation Type window appears.

Figure 15: The Sybase Installation Type Window

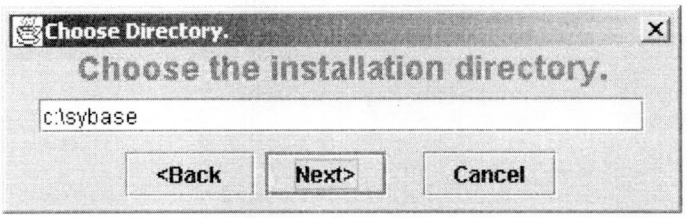


Click the **Standard Install** radio button, and then click **Next**. The Choose Directory window appears.

Notes

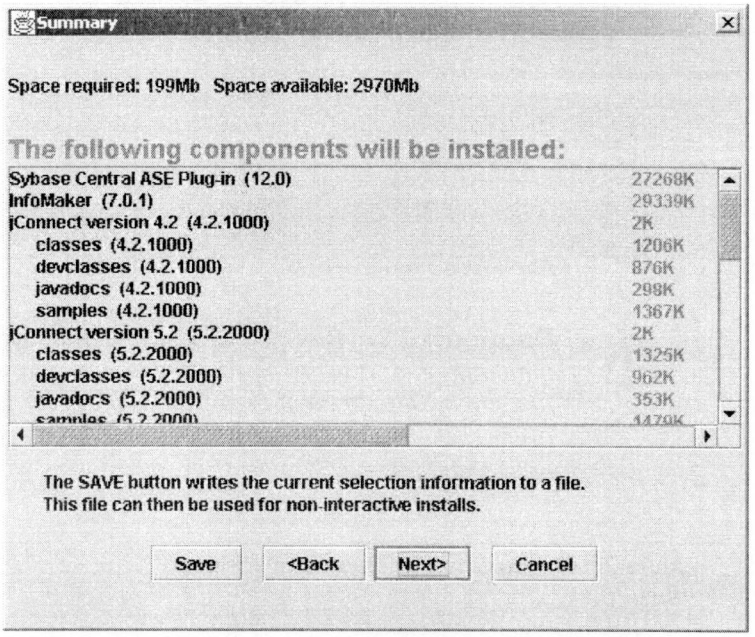


Figure 16: The Sybase Choose Directory Window



Enter a custom location where you will install the software, or accept the default path. Click **Next** to continue. The Summary window appears, displaying the components being installed.

Figure 17: The Sybase Installation Summary Window

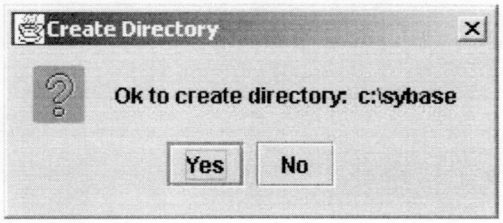


Click **Next** to continue. The Create Directory window appears, prompting you to confirm the name of the directory to which the files will be copied.

Notes

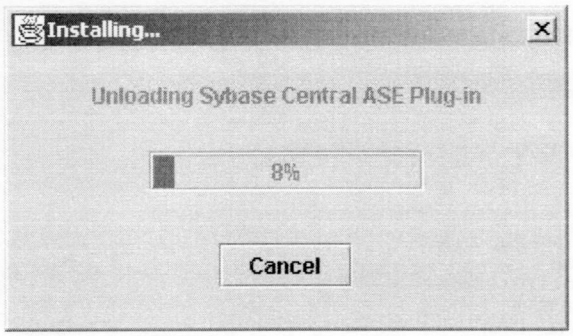


Figure 18: The Sybase Create Directory Window



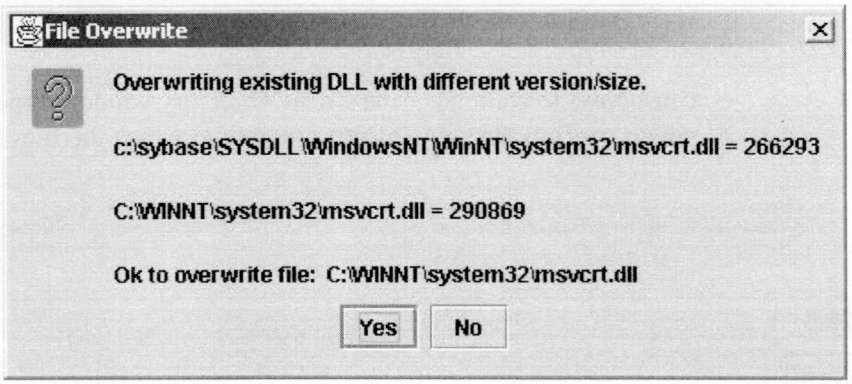
Click **Yes** to continue.

Figure 19: The Sybase Installing Window



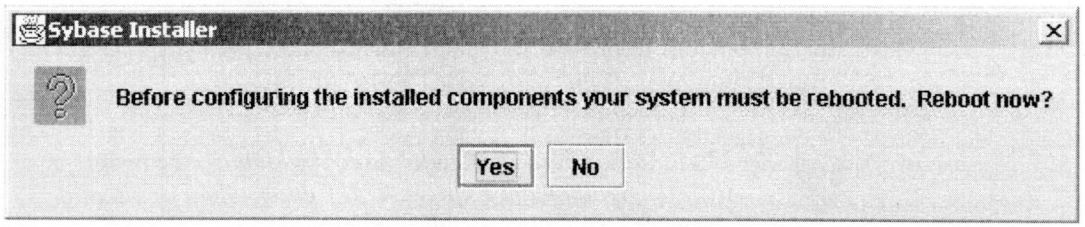
Caution: *If Sybase Open Client displays a dialog box indicating that it is attempting to overwrite an existing .DLL file, click* ***No*** *to prevent the installation wizard from overwriting the new Windows 2000 / XP .DLL file with an older version.*

Figure 20: The Sybase File Overwrite Window



The Sybase Installer window appears, prompting you to restart the system before configuring the installed components.

Figure 21: The Sybase Installer Window



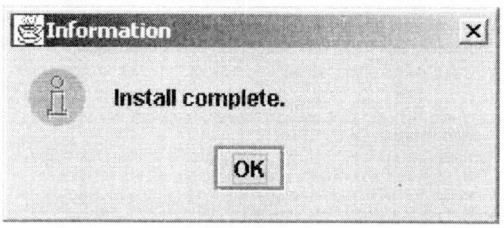
Click **Yes** to restart.

Tip: *This can take several minutes. Do not attempt to manually restart the system.*

Caution: *Do not remove the Symposium Express Call Center CD from the CD-ROM drive during the system restart process. The Installation Wizard carries out some final configuration procedures after the system restarts.*

After the system restarts, the Information window displays and confirms the Sybase installation.

Figure 22: The Sybase Information Window



Click **OK** to complete the installation.

Notes

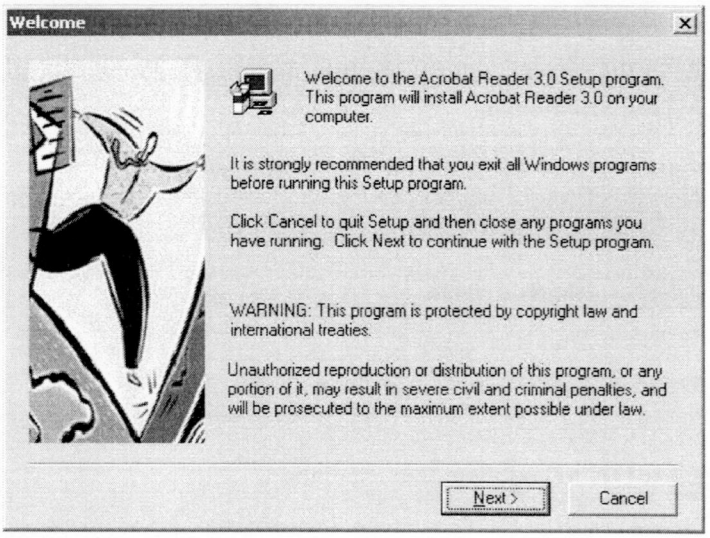
Adobe Acrobat Reader Installation

If Adobe Acrobat Reader 3.0 is not installed on the stand-alone client PC, you must install it. Acrobat Reader is required to view online documentation. The Adobe Acrobat Reader application software is available on the Symposium Express Call Center Release 4.2 Client Application CD in e:\acrobat\setup.exe, where e:\ is your CD-ROM drive.

Tip: *Adobe Acrobat Reader is not automatically installed with the Symposium Express Call Center client application software. You must install it manually.*

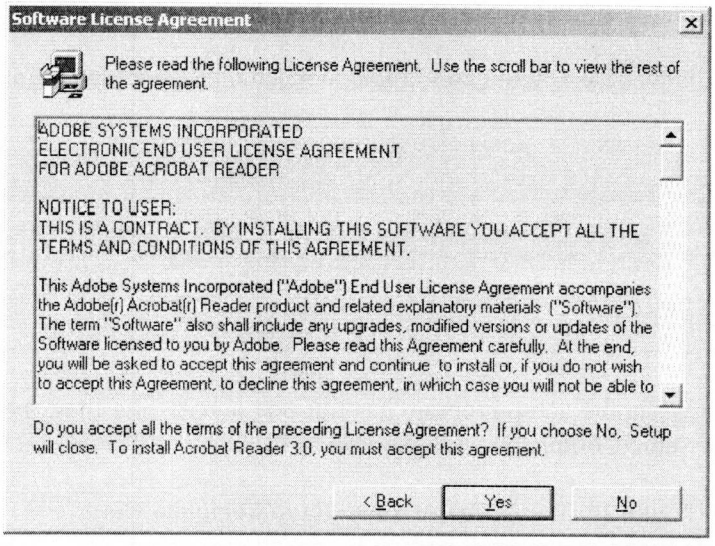
- With the Symposium Express Call Center Release 4.2 Client Application CD NTHF02AD inserted in the stand-alone client PC's CD-ROM drive, click **Start**, **Run**, and then **Browse**.
- Browse to the **Acrobat** folder on the Client Application CD and double-click the **setup.exe** file. The Run window opens.
- Click **OK** to continue. The Adobe Acrobat Installation Welcome window appears.

Figure 22: The Adobe Acrobat Installation Welcome Window



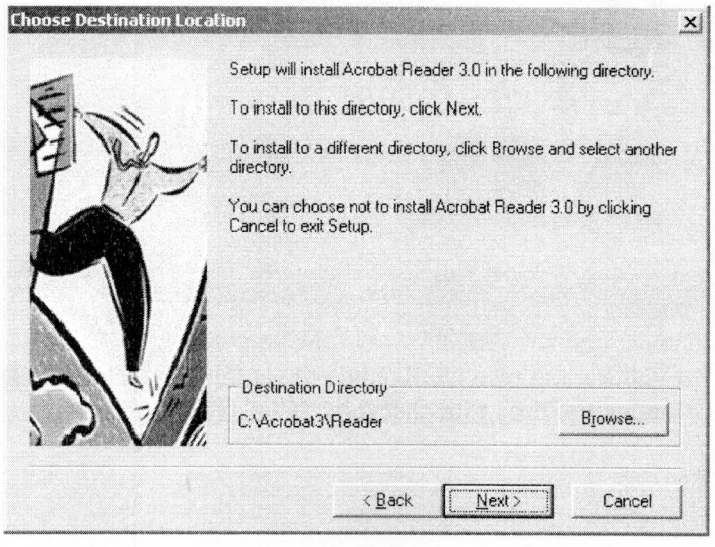
Click **Next** to continue. The Adobe Acrobat Software License Agreement window opens.

Figure 23: The Adobe Acrobat Software License Agreement Window



Click **Yes** to agree with the software license agreement and continue the installation. The Adobe Acrobat Choose Destination Location Window opens.

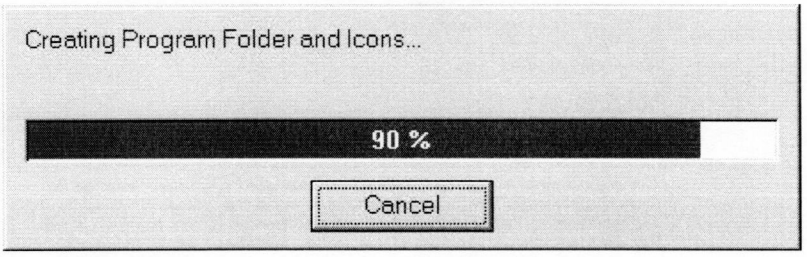
Figure 24: The Adobe Acrobat Choose Destination Location Window



Enter a custom location where you will install the software, or accept the default path. Click **Next** to continue.

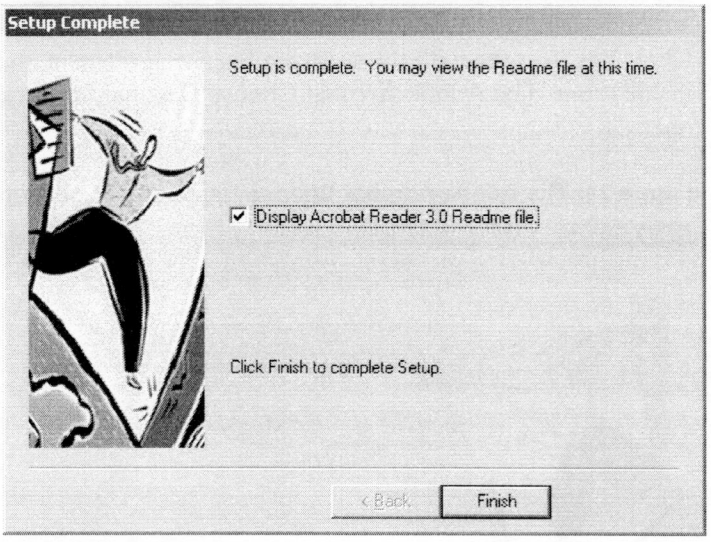
The program files install. A dialog box opens with status messages and a progress bar to track the installation process.

Figure 25: The Adobe Acrobat Installation Status Dialog Box



When the Setup program has finished transferring files, the Adobe Acrobat Setup Complete window opens.

Figure 26: The Adobe Acrobat Setup Complete Window

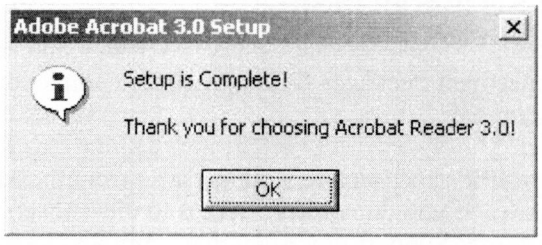


If you want to read the Readme file at this time, click the **Display Acrobat Reader Readme File** checkbox. Click **Finish** to complete the installation.

Notes



Figure 27: The Adobe Acrobat Setup is Complete Dialog Box



Click **OK** to exit the Adobe Acrobat Installation Wizard.

Notes



Client PEP and SU Installation

You must install the latest Service Update (SU) pack and any required Product Enhancement Packages (PEPs) after the completion of the client software installation.

You can obtain PEPs and Service Update packs from the Meridian PEP Library Web site. If you do not have access to this site, contact your Nortel Networks Customer Support representative. Any Service Update packs and PEPs that are available at the time of shipping are included on the Symposium Express Call Center Supplementary CD shipped with your software.



Tip: *To install PEPs, you must be logged on with an account that has local administrative privileges.*

Follow the steps below to install a client PEP:

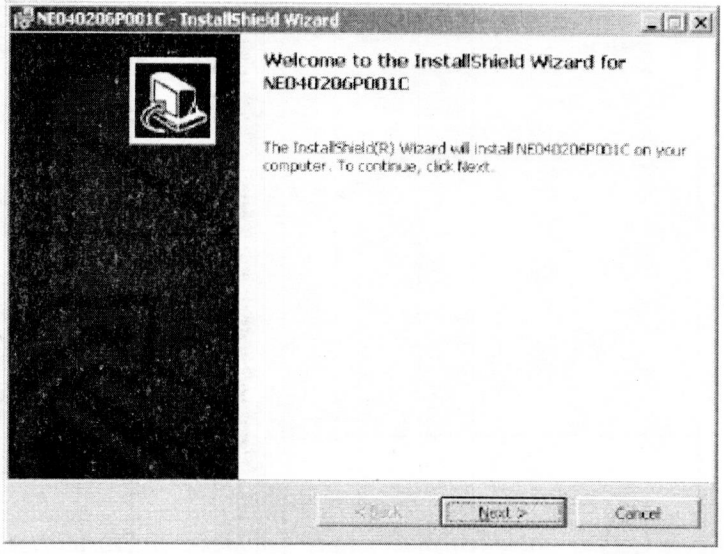
- Log on to the client PC as Administrator.
- Shut down all applications.
- Locate the latest PEPs
- Load the PEPs onto the client PC.
- Browse to the directory where the PEPs are located.
- Double-click the file name for the PEP you want to install ending with the .msi file extension

Notes



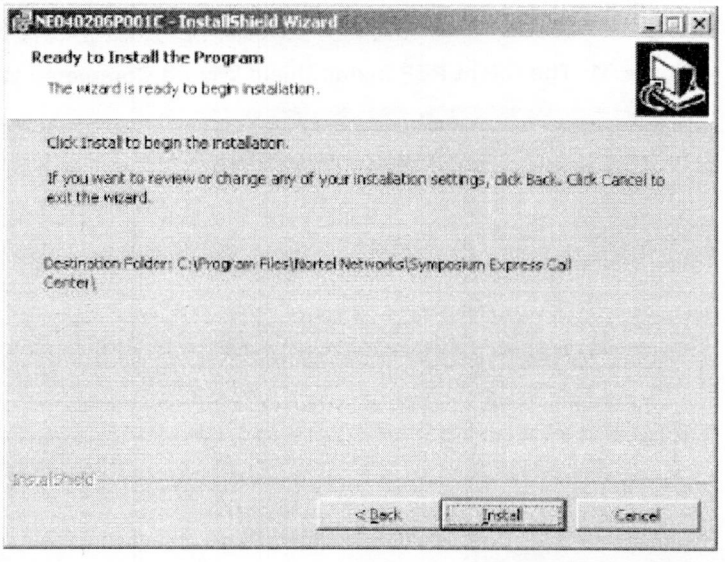
The PEP InstallShield Wizard window opens and checks that no Symposium Express Call Center services are running. (The client PC is not shut down)

Figure 28: The Client PEP InstallShield Wizard Welcome Window



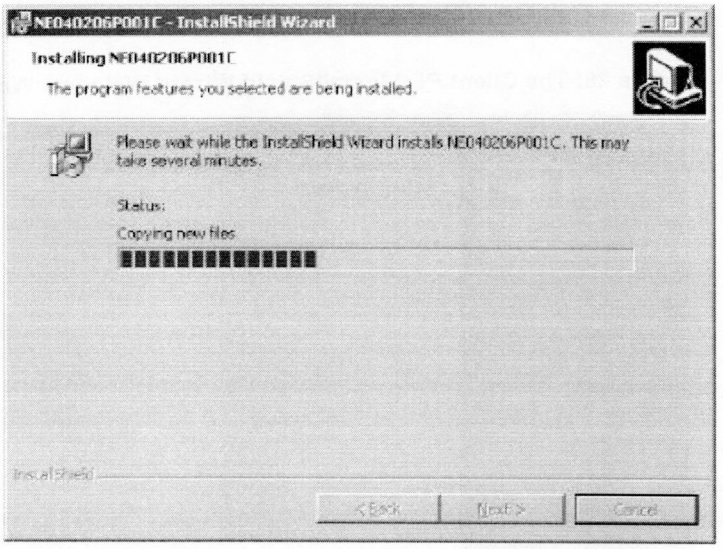
Click **Next**. The Ready to Install window opens.

Figure 29: The Client PEP InstallShield Wizard Ready to Install Window



Click **Back** to change any installation settings. Click **Cancel** to exit the wizard. Click **Install** to proceed with the PEP installation.

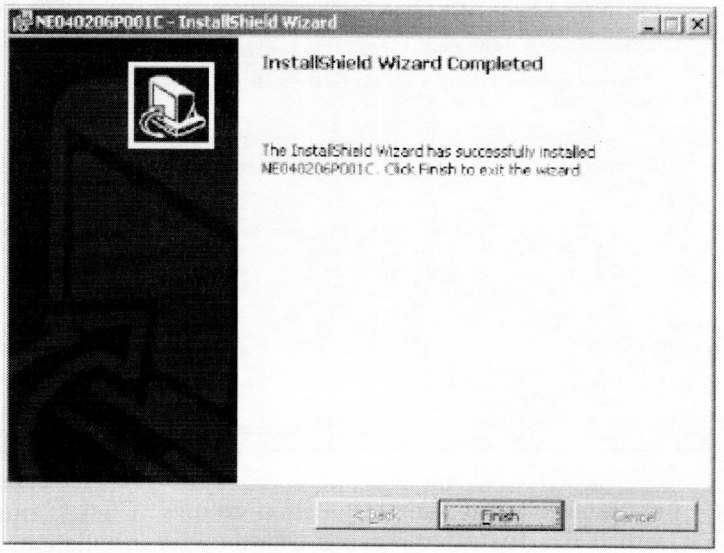
Figure 30: The Client PEP InstallShield Wizard Installing PEP Window



Caution: *If the PEP installer detects that the PEP cannot be installed successfully, contact your Nortel Networks customer support representative for assistance.*

The InstallShield Wizard Completed window appears when installation is complete.

Figure 31: The Client PEP InstallShield Wizard Completed Window

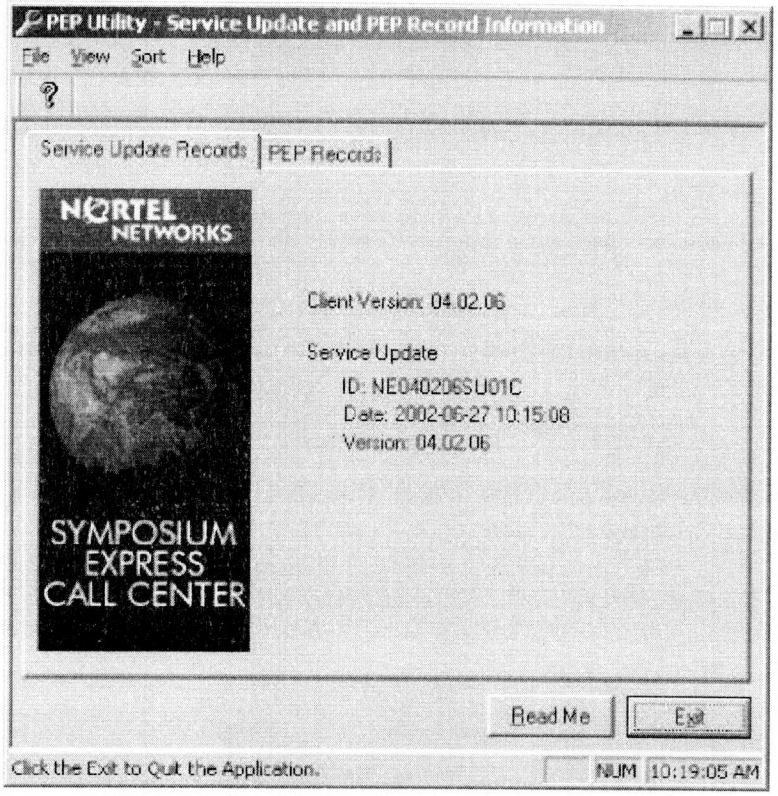


The PEP Viewer Utility

The PEP Viewer Utility is available on the Symposium Express Call Center stand-alone client PC.

To start the PEP viewer utility, click on **Start**, **Programs**, **Symposium Express Call Center Client**, and then **Client PEP Viewer**. The PEP Utility – Service Update and PEP Record Information window opens as shown in the following figure.

Figure 32: The Service Update Records Tab of the PEP Utility

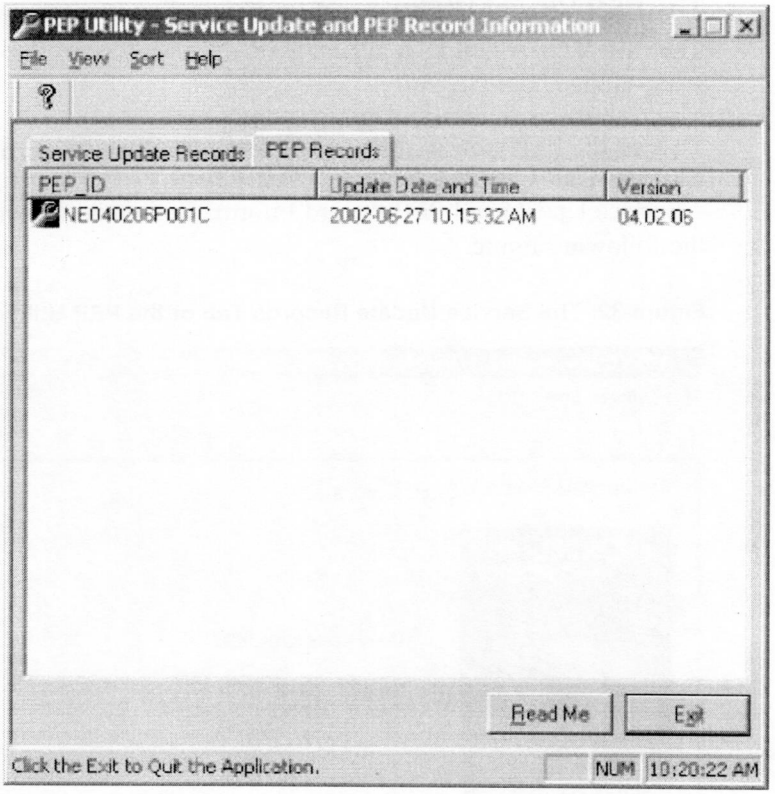


The Service Update Records tab shows the current Client Version and details of any service updates that have been applied to the client.

Notes



Figure 33: The PEP Records Tab of the PEP Utility



The PEP Records Tab lists all PEPs currently installed on the stand-alone client PC and provides the ability to uninstall all of these PEPs.

Notes





Practice

Installing the Client Software Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide,* and the *Symposium Express Call Center Call Center Management Guide.* Verify your answers with the Answers to Practice pages that follow the questions.

Select Answer

6. You can use the Symposium Express Call Center Release 2.0 client application with the Symposium Express Call Center Release 4.2 server.

   a. True

   b. False

Select Answer

7. You can use the Symposium Call Center Server client application with the Symposium Express Call Center Release 4.2 server.

   a. True

   b. False

reset

Select Answer

8. During which type of Symposium Express Call Center client installation will the Sybase Open Client software be installed with the client application software?

- a. Stand-alone client installation
- b. Co-resident client installation
- c. Both the stand-alone client installation or co-resident client installation
- d. The Sybase Open Client software must never be installed on a PC with the Symposium Express Call Center client application software

reset



Answers to Practice

Installing the Client Software Questions

Check your answers to the practice.

1. The Symposium Express Call Center stand-alone client application can be loaded on the _____ operating system.

   a. Windows 95/98

   b. Windows NT 4.0 Server or Workstation

   c. Windows XP professional

   d. Windows 2000 professional

2. The client PC must be running Microsoft TCP/IP and not a TCP/IP from another Vendor.

   a. True

   b. False

3. Internet Explorer 5.5 or later must be installed on the client PC for the Symposium Express Call Center client application to function.

   a. True

   b. False

4. Where does Nortel Networks recommend that you install the co-resident client application software on the Symposium Express Call Center PVI server?

   a. On the C:\ partition

   b. On the D:\ partition

   c. On the F:\ partition

   d. On any database partition

5. When installing the co-resident client on the Symposium Express Call Center server PC, what will occur if there is not enough free space available in the destination folder to complete the client installation?

   a. The installation program aborts the installation and displays a failure code of CS0781

   b. The system displays a warning message that critical files will be overwritten if the client installation continues

   c. The system displays a warning message that you must select a different location to install the client software

   d. The installation program automatically reallocates the required disk space from any hard drive partition with free space available

6. You can use the Symposium Express Call Center Release 2.0 client application with the Symposium Express Call Center Release 4.2 server.

   a. True

   b. False

7. You can use the Symposium Call Center Server client application with the Symposium Express Call Center Release 4.2 server.

   a. True

   b. False

8. During which type of Symposium Express Call Center client installation will the Sybase Open Client software be installed with the client application software?

   a. Stand-alone client installation

   b. Co-resident client installation

   c. Both the stand-alone client installation or co-resident client installation

   d. The Sybase Open Client software must never be installed on a PC with the Symposium Express Call Center client application software



Skill Check

Installing the Client Software

Install the Symposium Express Call Center client application software on both the PVI server as the co-resident client and on a stand-alone client PC using the CD-ROMs provided by your instructor, the Classroom Resource Sheet, and Installation Worksheets. You may use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide* as reference material for this Skill Check.

If the equipment is not available, write out the procedures that you need to follow to complete the tasks.

Install the Symposium Express Call Center client application on the server PC as a co-resident client:

- Gather the materials and information required
- Log on to the server as Administrator
- Insert the Symposium Express Call Center Client Application CD NTHF02AD
- Select the folder on the PVI server where the client application software will be installed
- Install the co-resident client application software
- Apply PEPs and SUs as required for the co-resident client

Install the Symposium Express Call Center client application on a stand-alone client PC:

- Gather the materials and information required
- Log on to the stand-alone client PC as Administrator
- Insert the Symposium Express Call Center Client Application CD NTHF02AD
- Enter the customer information
- Select the folder on the stand-alone client PC where the client application software will be installed
- Select the folder on the stand-alone client PC where the Sybase Open Client application software will be installed
- Install the stand-alone client application software
- Apply PEPs and SUs as required for the stand-alone client

If required, perform a manual installation of the Sybase Open Client application software on the stand-alone client PC:

- Insert the Symposium Express Call Center Release 4.2 Client Application CD NTHF02AD
- Browse to the ASE12CLT folder on the Client Application CD and double-click the **setup.exe** file
- Select **Standard Install**
- Choose the installation directory
- Install the Sybase Open Client application software
- Reboot the PVI server

If required, install the Adobe Acrobat Reader application software on the stand-alone client PC:

- Insert the Symposium Express Call Center Release 4.2 Client Application CD NTHF02AD
- Browse to the Acrobat folder on the Client Application CD and double-click the **setup.exe** file
- **Accept** the licensing agreement
- Choose the installation directory
- Install the Adobe Acrobat Reader application software



Skill Check Feedback

Installing the Client Software

Use the checklist below to verify the co-resident client installation.

Step	Co-Resident Client Application Software Installation	V
1.	Gather the materials and information required: Installation CD-ROMs Classroom Resources Sheet Configuration Worksheets *Symposium Express Call Center Planning, Installation, and Administration Guide*	
2.	Log on to server as Administrator	
3.	Insert the Symposium Express Call Center Client Application CD NTHF02AD	
4.	Select the folder on the PVI server where the client application software will be installed	
5.	Install the co-resident client application software	
6.	Apply PEPs and SUs as required for the co-resident client	

Use the checklist below to verify the stand-alone client installation.

Step	Stand-alone Client Application Software Installation	V
1.	Gather the materials and information required: Installation CD-ROMs Classroom Resources Sheet Configuration Worksheets *Symposium Express Call Center Planning, Installation, and Administration Guide*	
2.	Log on to the stand-alone client PC as Administrator	
3.	Insert the Symposium Express Call Center Client Application CD NTHF02AD	
4.	Enter the customer information	
5.	Select the folder on stand-alone client PC where the client application software will be installed	
6.	Select the folder on the stand-alone client PC where the Sybase Open Client application software will be installed	
7.	Install the stand-alone client application software	
8.	Apply PEPs and SUs as required for the stand-alone client	

If required for your stand-alone client PC, use the checklists below to verify the manual installation of the Sybase Open Client application software and the Adobe Acrobat Reader application software installation.

Step	Sybase Open Client Application Software Manual Installation	V
1.	Log on to the stand-alone client PC as Administrator	
2.	Insert the Symposium Express Call Center Client Application CD NTHF02AD	
3.	Browse to the ASE12CLT folder on the Client Application CD and double-click the setup.exe file	
4.	Select Standard Install	
5.	Choose the installation directory	
6.	Install the Sybase Open Client application software	
7.	Reboot the PVI server	

Step	Adobe Acrobat Reader Application Software Installation	V
1.	Log on to the stand-alone client PC as Administrator	
2.	Insert the Symposium Express Call Center Client Application CD NTHF02AD	
3.	Browse to the Acrobat folder on the Client Application CD and double-click the setup.exe file	
4.	Accept the licensing agreement	
5.	Choose the installation directory	
6.	Install the Adobe Acrobat Reader application software	

Summary

In this lesson you learned how to install the Symposium Express Call Center client application software on PCs that you prepared. The installation process was explained and is available for your reference. You also added the new system to your SMI Workbench, created a shortcut to the system on the client desktop, and established a connection between the Symposium Express Call Center client application and the Symposium Express Call Center server. You are now ready to finish loading the Symposium Express Call Center software and configure the software that you loaded.

Post-installation Tasks

Introduction

This lesson covers the tasks that you must complete after the installation of the Symposium Express Call Center server, co-resident client, and stand-alone client application software.

Objective

At the conclusion of this lesson, given your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*, you will be able to perform the following tasks:

- Reboot the Symposium Express Call Center server and verify the services on the System Monitor Window (SMonW)
- Install pcAnywhere client only application software on the Symposium Express Call Center server
- Configure pcAnywhere accounts on the Symposium Express Call Center server to permit remote access for Nortel Networks support
- Add a system on the SMI Workbench on both the co-resident client and the stand-alone client
- Add a desktop shortcut to the Symposium Express Call Center server for both the co-resident client and the stand-alone client
- Log on to the Symposium Express Call Center server from the co-resident client
- Log on to the Symposium Express Call Center server from the stand-alone client
- Describe Symposium Express Call Center features and user access levels
- Change passwords for your Symposium Express Call Center server, client, and pc Anywhere accounts
- Log off of the Symposium Express Call Center

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Installing the Software"		

The System Monitor Window

When the server restarts after the installation, log on as **NGenSys**.

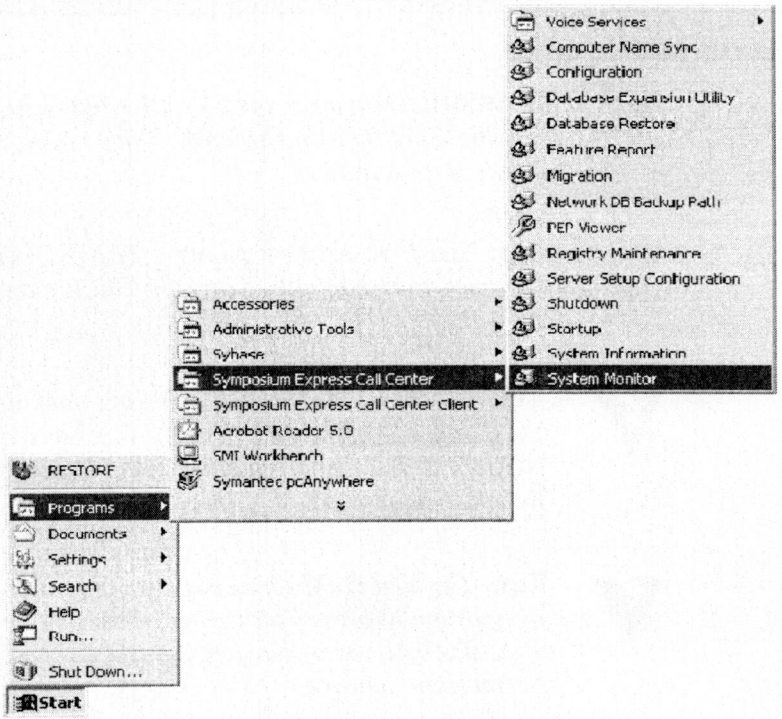
Tip: *You must log on as NGenSys to perform Symposium Express Call Center server management functions, such as installing PEPs. Log on to the server as Administrator to perform Windows 2000 operating system management functions. When you have finished the Windows management tasks, log Administrator off and log on again as NGenSys.*

Note: It may take several minutes as the services start for the desktop to appear.

The MAS Trace Window opens automatically. The server installation and database configuration is complete. The Symposium Express Call Center software is now ready for use.

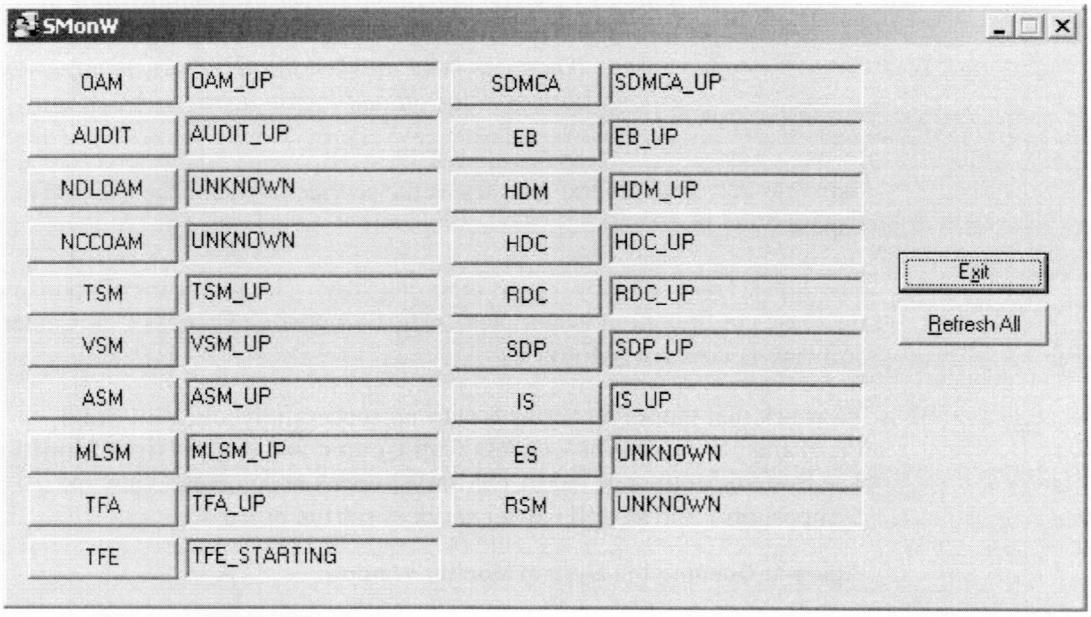
To check that the server services start up successfully, click on **Start**, **Programs**, **Symposium Express Call Center**, and then **System Monitor**. The System Monitor Window (SMonW) opens and you can view the Symposium Express Call Center services startup process.

Figure 1: Opening the System Monitor Window



Tip: *It will take the services approximately 10 to 15 minutes to start up.*

Figure 2: The System Monitor Window



Caution: *Only open one SMonW window at any given time. Having more than one SMonW window open will cause services to shut down.*

Tip: *The TFE service remains at TFE_STARTING until call treatments are configured and the Call Routing Wizard has been run.*

Tip: *The NCCOAM service is always unknown on a Symposium Express Call Center. This service only changes to NCCOAM_UP on a Network Control Center server in a Symposium network.*

Tip: *The NDLOAM service is always unknown on a Symposium Express Call Center. This service only changes to NCCOAM_UP on a Network Control Center server in a Symposium network.*

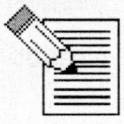
The services listed on the SMonW are Windows services that are started automatically when the server is powered up. The services are described in the following table.

Table 1: The Service on the SMonW

Server Service	Shown As	Purpose
Operations, Administration, and Management	OAM	System operation, administration, and management
Auditing	AUDIT	Monitor function that manages all services
Network services (Meridian 1 only)	NDLOAM	Nodal system operation, administration, and management
Network services (Meridian 1 only)	NCCOAM	Network Control Center operation, administration, and management
Telephony Service Manager	TSM	Telephony interface between switch and server
Voice Services Manager	VSM	Interface to Meridian Mail via ACCESS VOICE processing interface
Agent Skillset Manager	ASM	Agent and skillset handling
Meridian Link Services Manager	MLSM	Allows third-party applications to interface with the server
Task Flow Access	TFA	Allows third-party access via scripting commands (Data Exchange Server)
Task Flow Executor	TFE	Executes all scripts and handles all calls
Statistical Data Manager Configuration	SDMCA	Manages all of the statistical collection services
Historical Data Manager	HDM	Manages all of the historical data collected by HDC
Historical Data Collection	HDC	Collects all of the historical data
Real Time Data Collector	RDC	Collects and generates real-time statistics for display
Statistical Data Propagator	SDP	Distributes incoming statistical data to the appropriate service
Intrinsic Services	IS	Manages skillset intrinsic data
Event Server	ES	Manages events

RSM

Notes





Practice

Post-installation Tasks Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide.* Verify your answers with the Answers to Practice pages that follow.

Select Answer

1. With Symposium Express Call Center, when will the NCCOAM service change to have a NCCOAM_UP status on the SMonW window?

- a. After the scripts have started
- b. After the server has fully booted
- c. After the Call Treatments have been configured and the Call Routing Wizard has run
- d. The NCCOAM service only changes to NCCOAM_UP on a Network Control Center server in a Symposium network

Select Answer

2. Which service on the Symposium Express Call Center SMonW window manages all of the statistical collection services?

- a. IS
- b. HDC
- c. SDP
- d. SDMCA

reset

Install and Configure pcAnywhere

Symantec pcAnywhere is a third-party application that allows a user at one PC to take remote control of another PC. Nortel Networks requires that you install pcAnywhere Host-only software on the Symposium Express Call Center server PC. With pcAnywhere, you can perform advanced administrative tasks on the server from a remote PC and control the server as though you were directly connected to it. Remote access allows your distributor or Nortel Networks customer support to log on to your server from a remote location to provide support.

One copy of pcAnywhere Host Only software is provided with the Symposium Express Call Center software. If additional pcAnywhere software is required, the customer must purchase it separately from a software vendor.



Tip: *One copy of pcAnywhere is provided on the NTJK08AA pcAnywhere Host-Only CD. This software license enables you to configure the server as the host computer in remote control sessions (that is, the computer to which remote computers connect). You must purchase additional licenses to legally install pcAnywhere on any additional client PCs.*



Caution: Risk of system failure

Before installing pcAnywhere, ensure that the video drivers on the server PC are current by consulting the driver manufacturers' Web sites for any available updates. Failure to do so can result in the appearance of a blue screen after pcAnywhere installation or after use of pcAnywhere for operations, such as file transfer. For more information, refer to the pcAnywhere Web site.



Tip: *You do not have to uninstall any previous versions of pcAnywhere before installing the current version. The Symantec installation wizard automatically uninstalls previous versions of pcAnywhere before beginning your installation. If, during installation, the wizard asks if you want to preserve configuration data from a previous version after the uninstall process, select* ***No****. Configuration data from previous versions of pcAnywhere is incompatible with the current version.*

AS THOUGH = COMO SI

Install pcAnywhere

Follow the steps below to install pcAnywhere on your Symposium Express Call Center server PC:

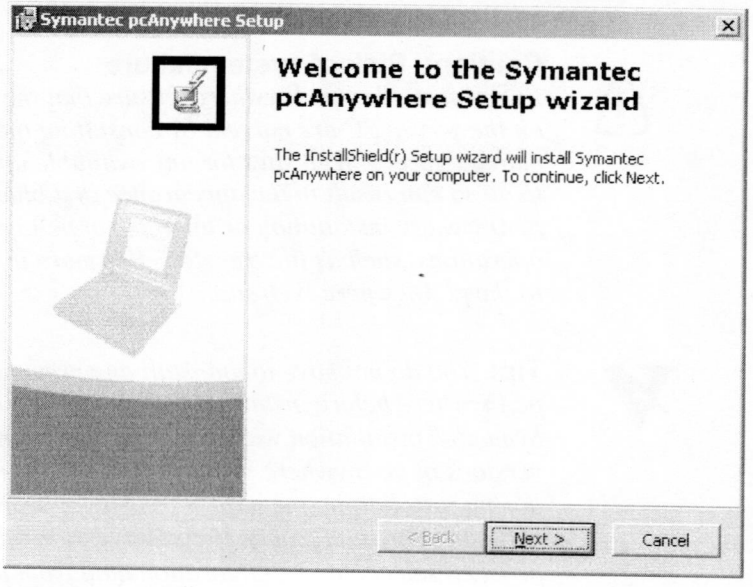
Note: If the Symposium Express Call Center software is installed and running and you need to install pcAnywhere, you must first shut down the services on the server. From the **Start** menu, click on **Programs**, **Symposium Express Call Center**, and then **Shutdown**. Click on **OK** and then click on **Accept** to shut down the services and close the Symposium Express Call Center software.

- Log on to the server PC as the Windows 2000 Administrator.
- Insert the NTJK08AA pcAnywhere Host-Only CD in the CD-ROM drive. If the program does not automatically begin the installation process, open the Windows Explorer and browse to:

  E:\pcAnywhere.exe (where E: is your CD-ROM drive)

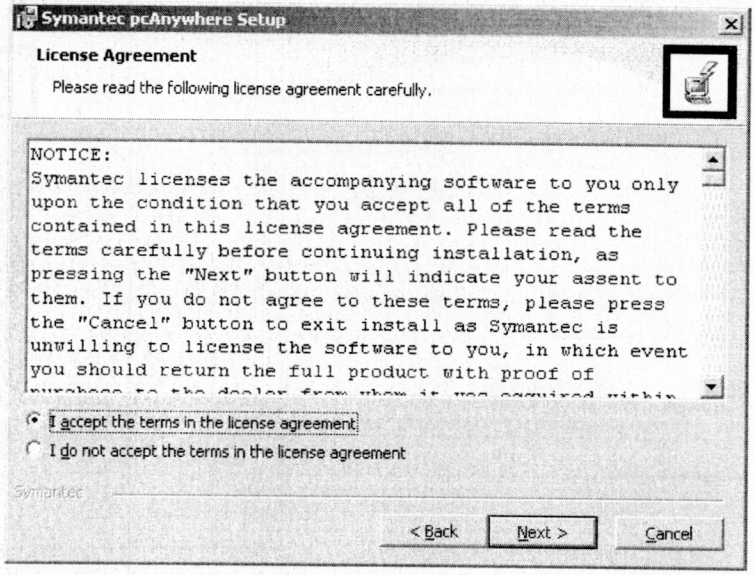
- Double-click on the program **pcAnywhere.exe** to activate the Symantec installation wizard.

Figure 3: The Symantec pcAnywhere Setup Wizard Welcome Window



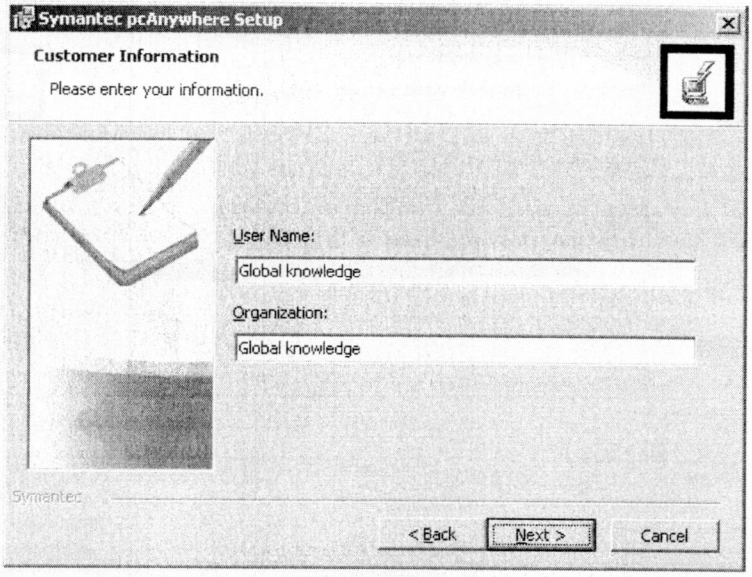
Click **Next** to continue the pcAnywhere installation.

Figure 4: Symantec pcAnywhere Setup Wizard License Agreement



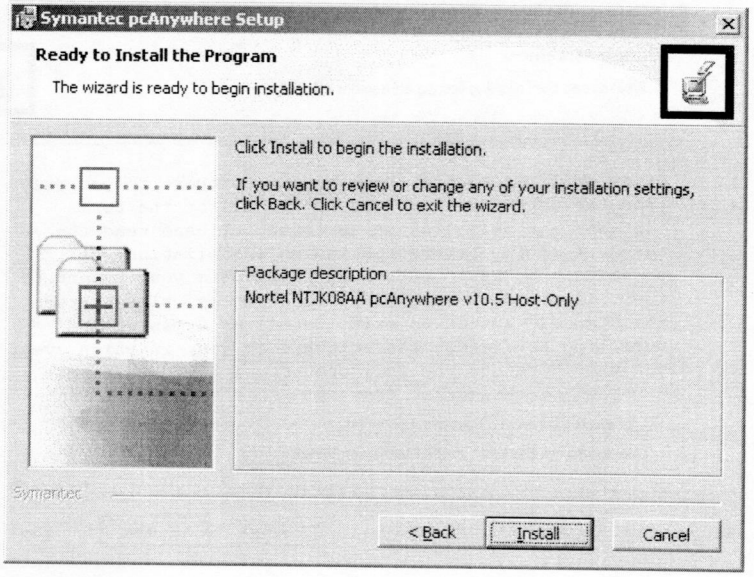
Click the **I accept the terms in the license agreement** radio button and then click **Next** to continue the pcAnywhere installation.

Figure 5: Symantec pcAnywhere Setup Wizard Customer Information



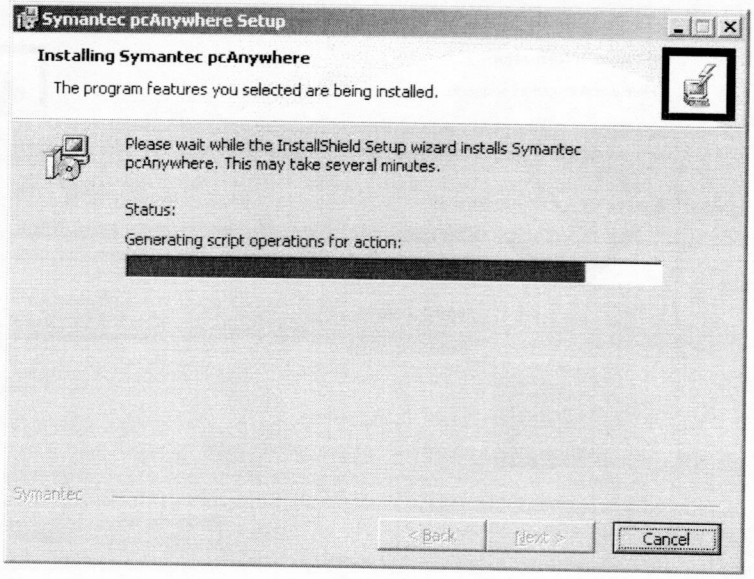
Enter the **User Name** and **Organization** and then click **Next** to continue the pcAnywhere installation.

Figure 6: Symantec pcAnywhere Setup Wizard Ready to Install



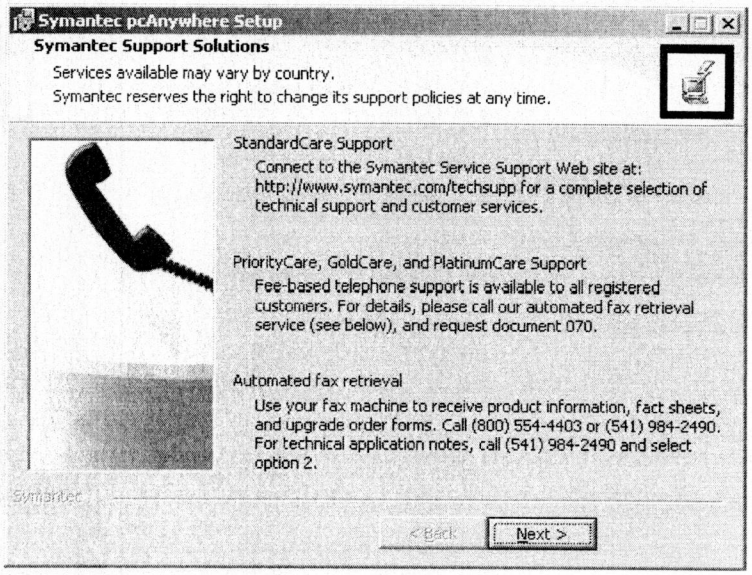
Verify the **Package description** and then click ~~**Next**~~ Install to continue the pcAnywhere installation.

Figure 7: Symantec pcAnywhere Setup Wizard Installing



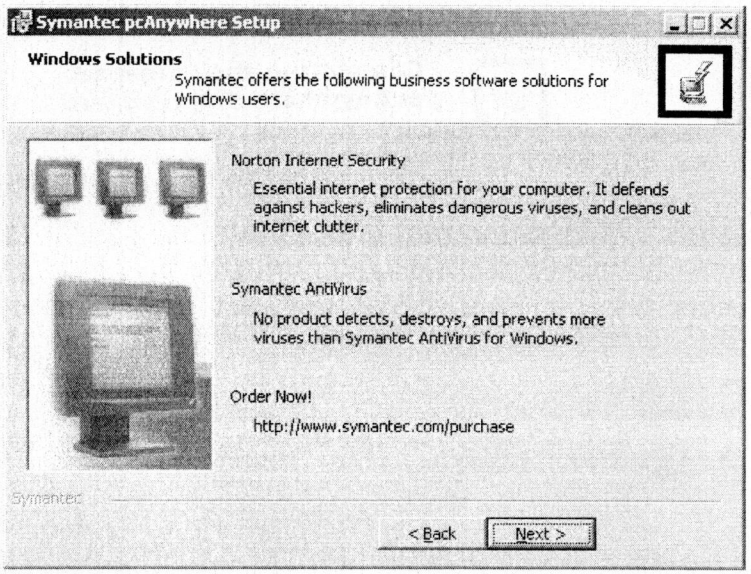
Observe the software installation process.

Figure 8: Symantec pcAnywhere Setup Wizard Symantec Support Solutions



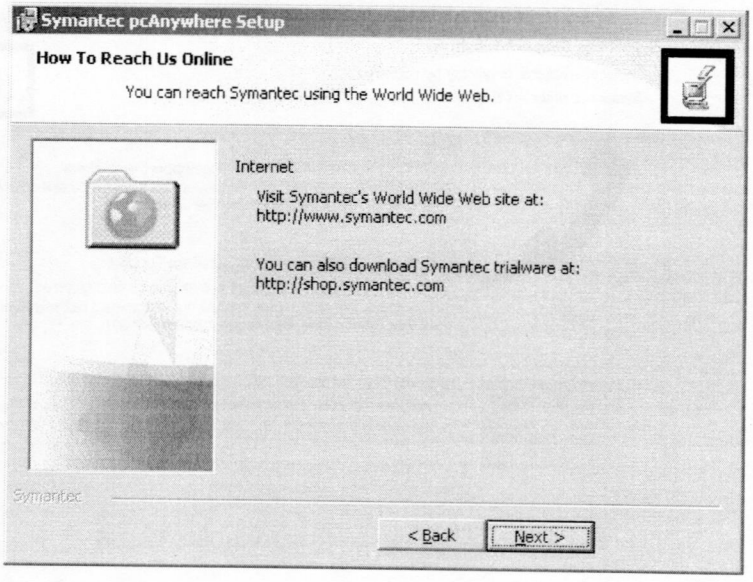
Read the information on the Symantec Support Solutions window and then click **Next** to continue the pcAnywhere installation.

Figure 9: Symantec pcAnywhere Setup Wizard Windows Solutions



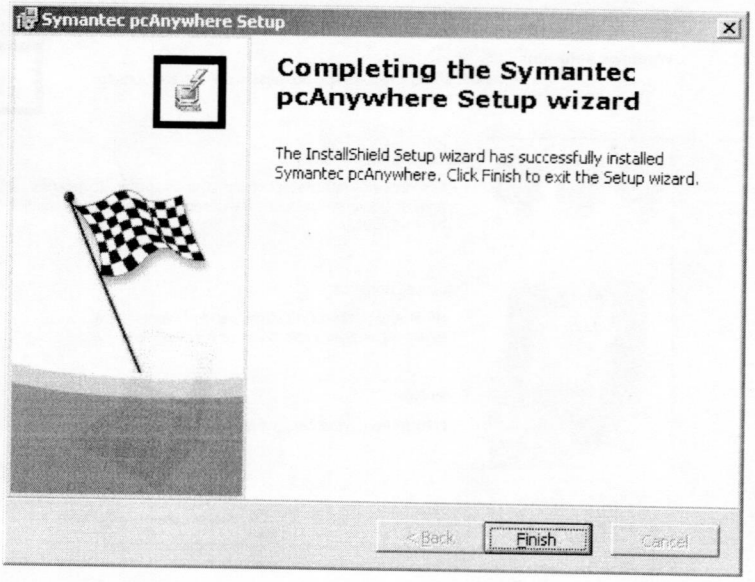
Read the information on the Windows Solutions window and then click **Next** to continue the pcAnywhere installation.

Figure 10: Symantec pcAnywhere Setup Wizard How to Reach Us Online



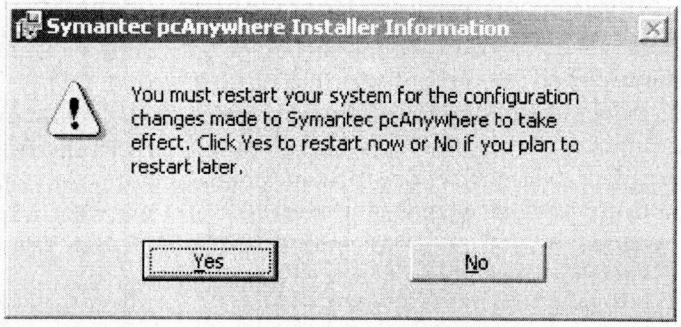
Read the information on the How to Reach Us Online window and then click **Next** to continue the pcAnywhere installation.

Figure 11: Symantec pcAnywhere Setup Wizard Completing the Setup Wizard



Click **Finish** to complete the pcAnywhere installation.

Figure 12: Symantec pcAnywhere Installer Information



Click **Yes** to restart the PVI server and complete the pcAnywhere installation.

Configure pcAnywhere

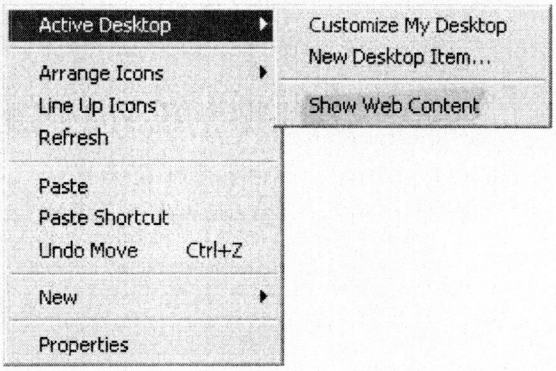
You must configure pcAnywhere on your server to accept remote connections. If Nortel Networks support personnel cannot log on to your Symposium Express Call Center server, they cannot provide support from their remote location. In a following lesson you will learn how to setup a RAS session to your server and use the pcAnywhere connection that you are configuring.

Configure Active Desktop Settings

To ensure optimum speed when using pcAnywhere, configure the Active Desktop settings on the server as follows:

- Right-click anywhere on the server desktop.
- On the resulting pop-up menu, highlight **Active Desktop** until another pop-up menu appears.
- On this pop-up menu, ensure that Show Web Content is not selected.

Figure 13: Configuring the Active Desktop



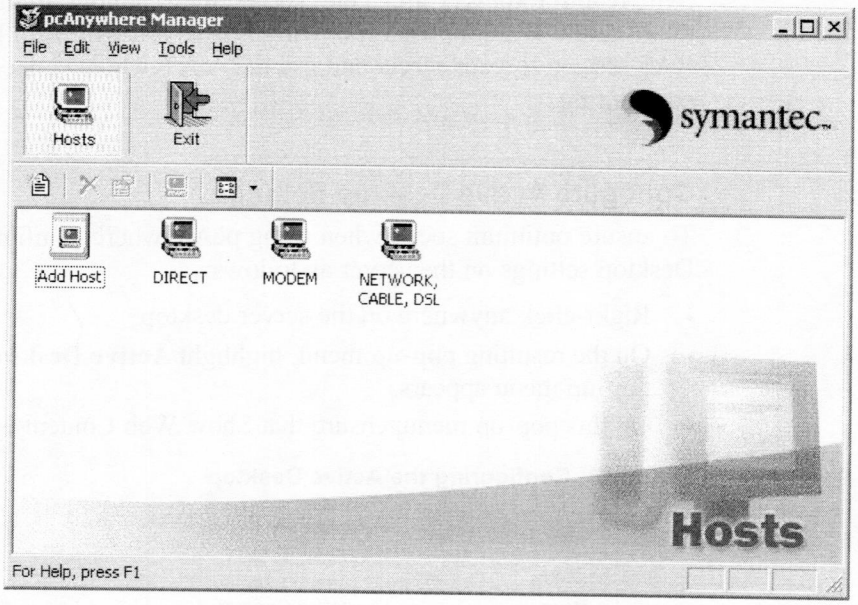
Configure pcAnywhere Host Only as a Host PC

Note: The procedures in the section "Configuring pcAnywhere" in the chapter titled "Server software" in the *Symposium Express Call Center Planning, Installation, and Administration Guide*, apply to configuring a complete version of pcAnywhere as purchased directly from Symantec. However, Nortel Networks provides one copy of pcAnywhere Host-only software with the Symposium Express Call Center software CD-ROMs. The procedure below applies to configuring the Host-only version of pcAnywhere provided with the Symposium Express Call Center software.

Nortel Networks server software establishes two remote dial-up accounts. You must configure pcAnywhere to use these accounts. Follow the steps below to configure the pcAnywhere software to allow Nortel Networks support personnel remote access to your server PC:

From the **Start** menu, click on **Programs** and then **pcAnywhere**. The pcAnywhere Manager window appears.

Figure 14: The pcAnywhere Manager Window

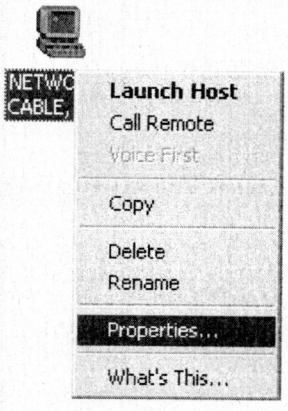


Notes



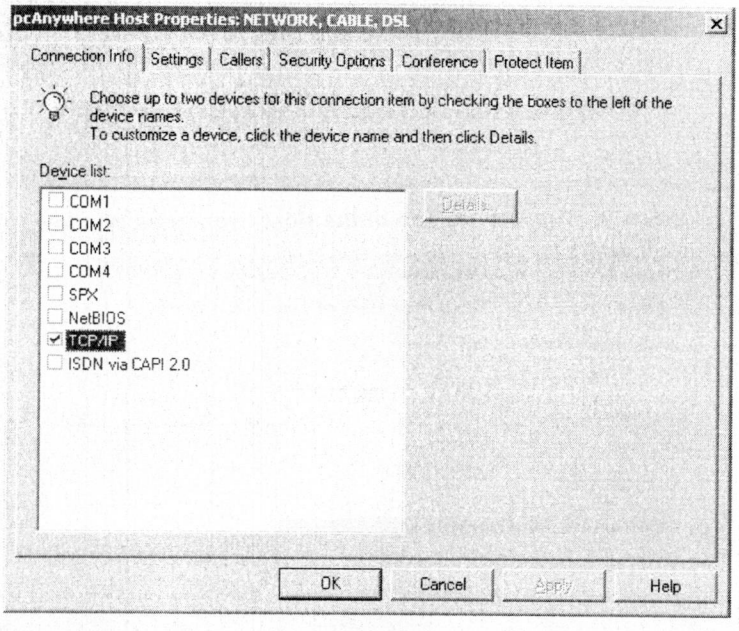
In the pcAnywhere Manager window, right-click the **Network, Cable, DSL** icon, and then choose **Properties**.

Figure 15: Right-click on the Network, Cable, DSL Icon



The pcAnywhere Host Properties: Network, Cable, DSL window appears. Click the **Connection Info** tab.

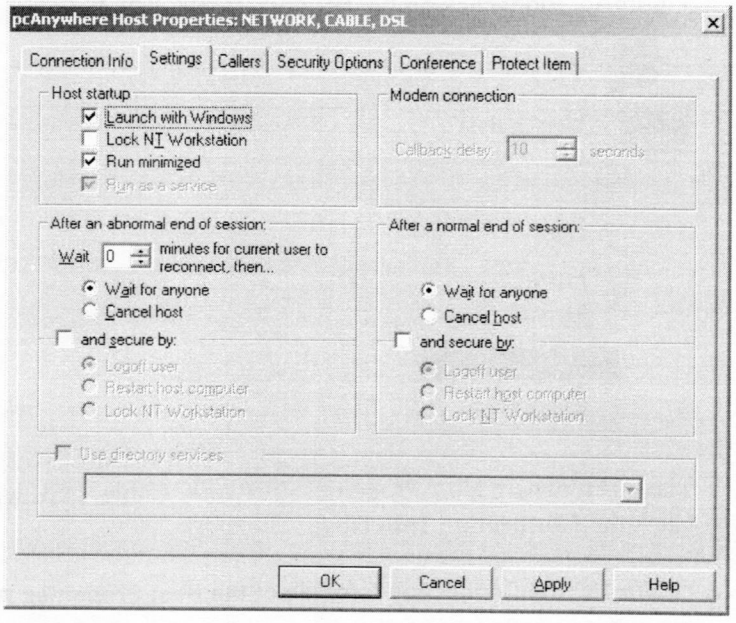
Figure 16: The Connection Info Tab of the Host Properties Window



Ensure that only **TCP/IP** is checked. Click **Apply** to save your changes.

Click the **Settings** tab.

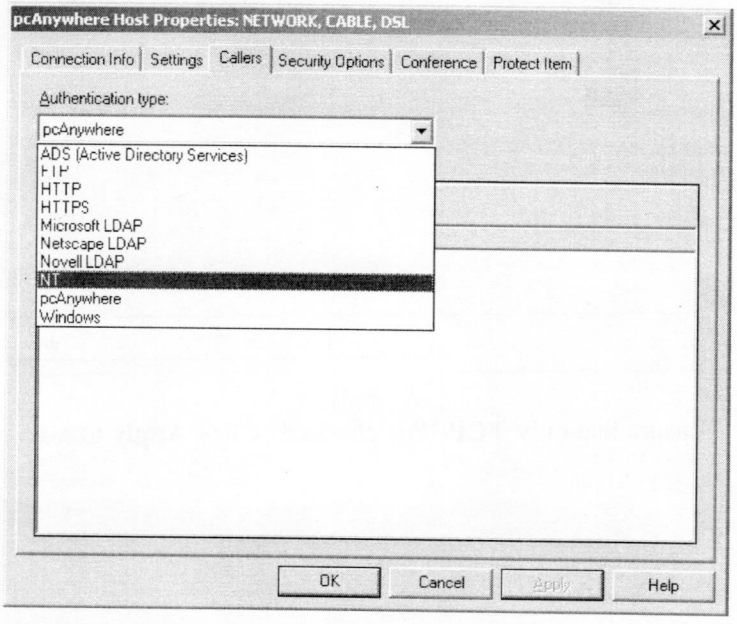
Figure 17: The Settings Tab of the Host Properties Window



Ensure that the **Launch with Windows** and **Run minimized** settings are selected. Click **Apply** to save your changes.

Click the **Callers** tab.

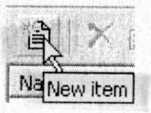
Figure 18: The Callers Tab of the Host Properties Window



From the **Authentication type** drop-down list, select **NT**.

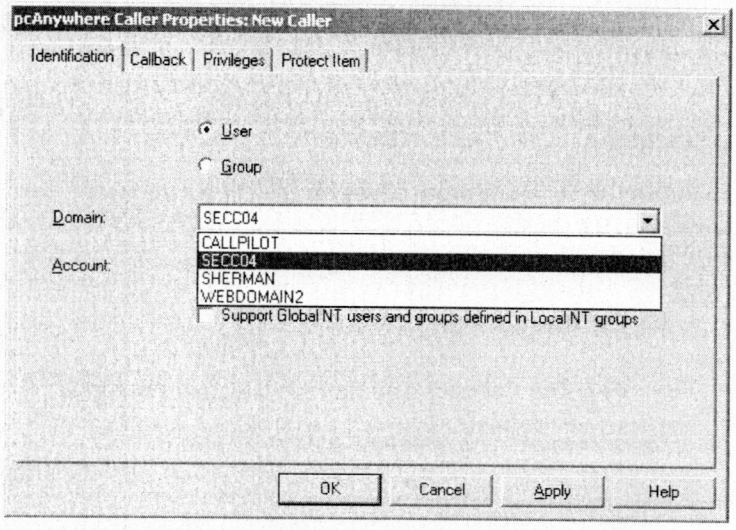
Below the Caller list heading, click the **New item** icon.

Figure 19: The New Item Icon on the Callers Tab



The pcAnywhere Caller Properties: New Caller window appears.

Figure 20: The Domain Drop-down Menu on the New Caller Window



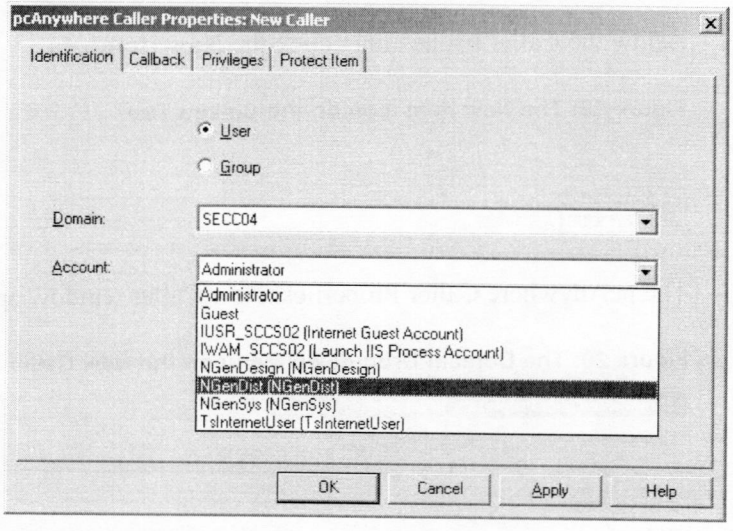
On the Identification tab, ensure that the **User** radio button is selected.

From the Domain drop-down list, select the computer name of the server in Symposium Express Call Center.

Notes



Figure 21: The Account Drop-down Menu on the Identification Tab New Caller

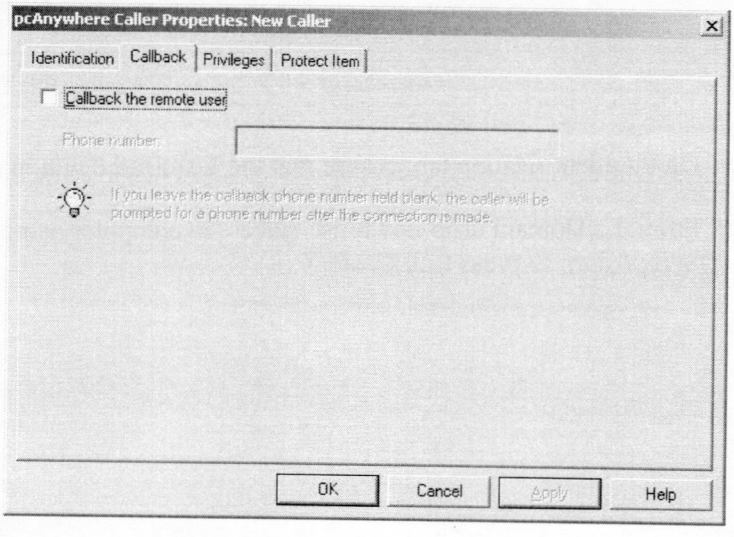


From the Account drop-down list, select **NGenDist**.

Click **Apply** to save your changes.

Click the **Callback** tab.

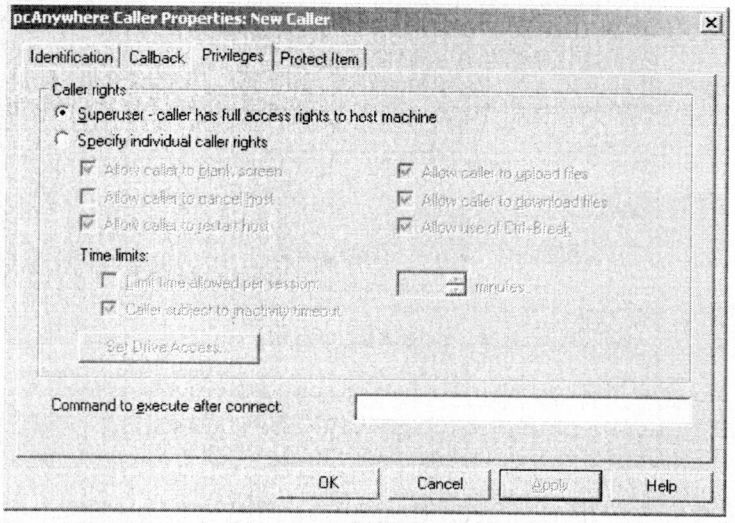
Figure 22: The Callback Tab on the New Caller Window



Ensure that the **Callback the remote user** check box is not checked.

Click the **Privileges** tab.

Figure 23: The Privileges **Tab on the New Caller Window**



Click the **Superuser** radio button. Click **Apply** to save your changes. Click **OK** to save the NGenDist caller account settings.

The Callers tab in the pcAnywhere Host Properties: Network, Cable, DSL window reappears.

Perform this procedure again and add the NGenDesign caller account.

Notes

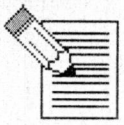
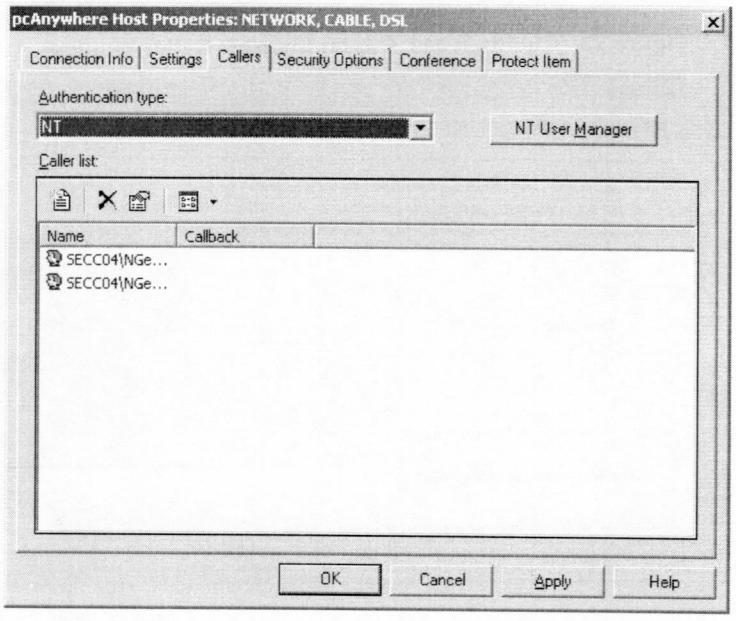


Figure 24: The NGenDist and NGenDesign Accounts on The Callers Tab



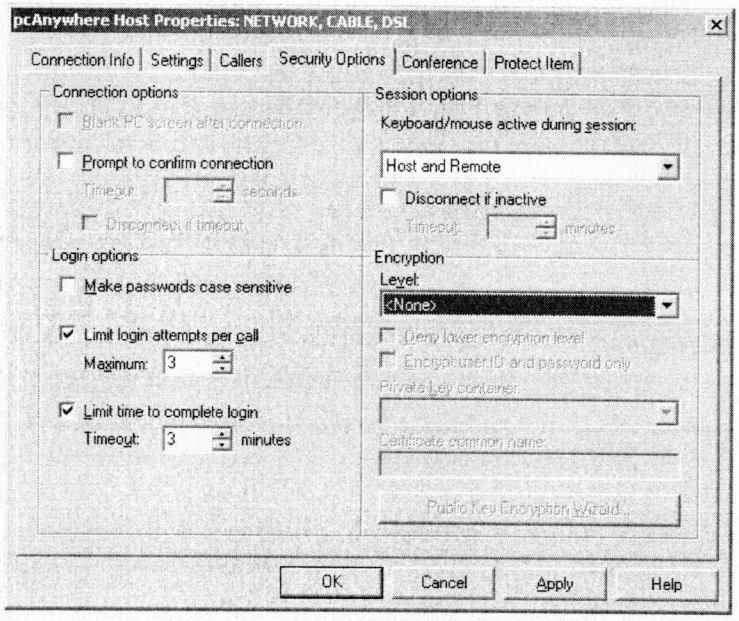
Note: When you install the Symposium Express Call Center server application software, the NGenDist and NGenDesign user accounts are automatically created as Windows remote user accounts. To allow Nortel Networks support personnel to log on to and administer the server with pcAnywhere, you must designate these Windows accounts as valid pcAnywhere caller accounts. By creating this link between Windows and pcAnywhere, you never have to change the passwords for these accounts in pcAnywhere. The password information is automatically updated in pcAnywhere when you change the passwords in Windows.

Notes



Click the **Security Options** tab.

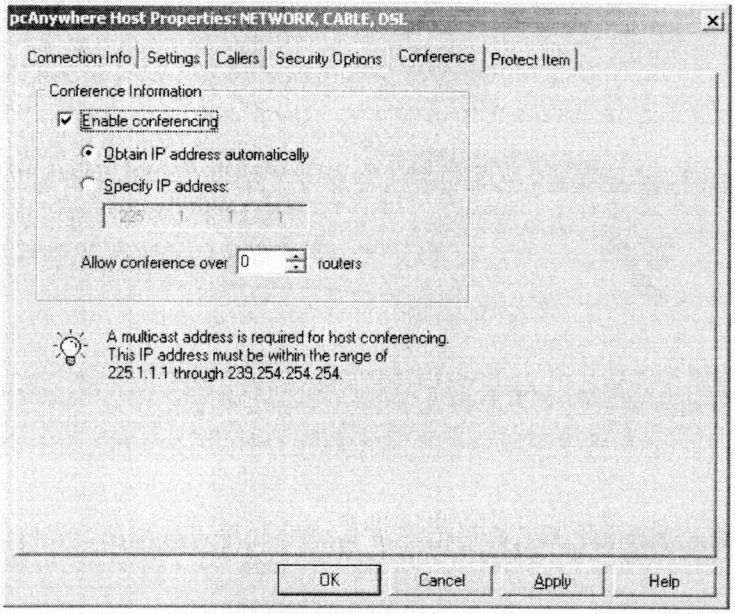
Figure 25: The Security Options Tab of the Host Properties Window



Ensure that the settings are as shown in the figure above. Click **Apply** if you have made any changes.

Click the **Conference** tab.

Figure 26: The Conference Tab of the Host Properties Window

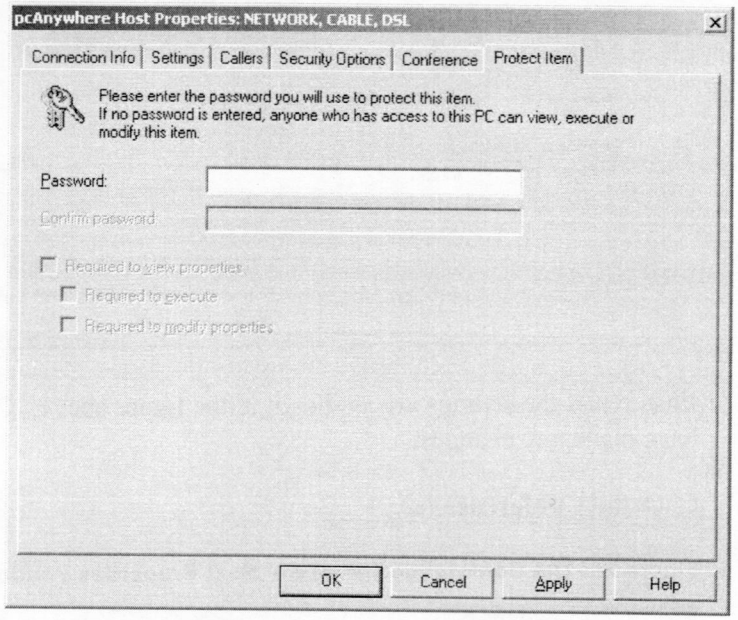


Ensure that **Enable conferencing** and **Obtain IP address automatically** are selected.

Click **Apply** if you have made any changes.

Click the **Protect Item** tab if you want to protect the settings for this caller account by assigning a password to control access to the settings. If not, apply all pcAnywhere Host PC settings and close the pcAnywhere Manager window.

Figure 27: The Security Options Tab of the Host Properties Window



In the Password box, type the **password** you want to use to protect the Network icon settings.

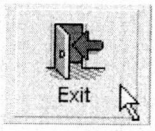
In the Confirm password box, type the **password** again.



Tip: *If you select the Required option to modify properties, you must enter the password each time a setting is changed. Record the password and keep a copy of it in a safe place. If you forget the password, you cannot change any settings.*

Click **OK** to apply all pcAnywhere Host PC settings.

Figure 28: The Exit Button on the pcAnywhere Manager Window Toolbar



Click **Exit** to close the pcAnywhere Manager window.

Tip: *Specifying remote callers and changing pcAnywhere passwords will ensure that only those people authorized to administer the Symposium Call Center Server can gain access to your system via pcAnywhere.*

Setting the Video Mode

pcAnywhere offers various Video Mode settings that allow users to connect and view correctly the host machine via pcAnywhere. The Compatibility setting causes increased CPU utilization by the host (over 70% in one case). This high CPU utilization can impact processing applications. To maximize the performance of the pcAnywhere remote control connection, use the Default video mode.

Tip: *Select the "Default (Accelerator Enabled)" option from the video mode selection field.*

To set the video mode, use this procedure:

- Start pcAnywhere. The pcAnywhere Manager window appears.
- Click on **Tools** and then **Options**. The pcAnywhere Options window appears.
- Click on the **Host Operation** tab.
- From the drop-down list in the Video mode selection area, ensure that the **Default (accelerator enabled)** option is selected.
- Click **OK** to save your changes and exit the window.

Notes



Practice

Post-installation Tasks Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

3. Which Windows remote user accounts, created during the Symposium Express Call Center server application software installation, must be added to the Caller list on the pcAnywhere Host Properties: NETWORK, CABLE, DSL window when you are configuring pcAnywhere Host Only as a Host PC?

- a. NGenSys and sysadmin
- b. sysadmin and custadmin
- c. NGenDist and NGenDesign
- d. Supervisor and Senior Supervisor

Select Answer

4. When configuring pcAnywhere application as a host on the Symposium Express Call Center server PC, what must be checked on the Device list on the Connection Info tab of the pcAnywhere Host Properties: Network, Cable, DSL window?

- a. COM1
- b. COM2
- c. TCP/IP
- d. ISDN via CAPI 2.0

reset

Configuring SNMP on the Server

When you configured the Windows® 2000 Server operating system on the PVI server PC, you had to insure that the SNMP service was installed. This service provides the Simple Network Management Protocol agent that runs on the Symposium Express Call Center. At some customer sites, you will be required to configure this service to forward events to a Network Management System (NMS). To configure SNMP, you must perform the following tasks:

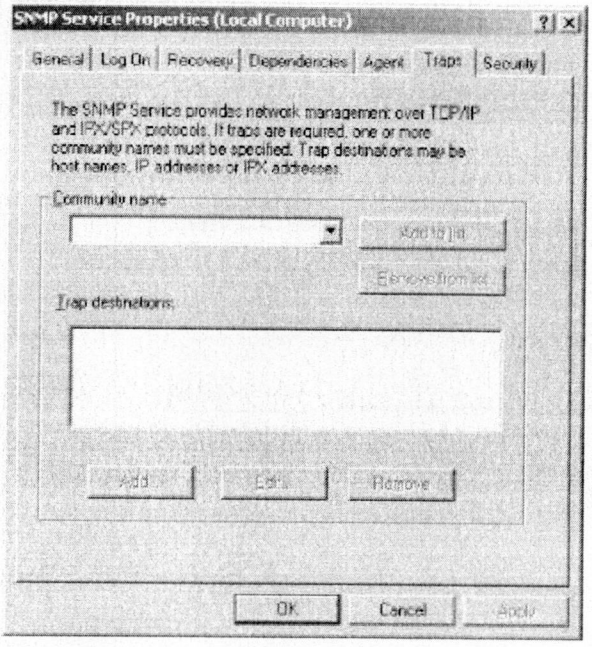
- Configure the SNMP service on the server PC
- Select the types of events to be forwarded to the NMS
- Configure the NMS

Configure the Windows SNMP Service

To configure the SNMP service on the Symposium Express Call Center PVI server, log on to the server as **NGenSys** and follow the steps below:

- From the **Start** menu, select **Programs**, **Administrative Tools**, and then **Services** to open the Services window
- On the **Services** window, select **SNMP** from the list of services
- Click **Action** and then **Properties** to open the SNMP Service Properties window

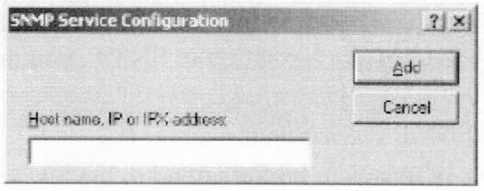
Figure 29: The Traps Tab of the SNMP Service Properties Window



- Click to open the **Traps** tab

- If no Community name has been defined, type **public** in the Community name data box and click the **Add to list** button
- Under Trap destinations, click the **Add** button to enter the IP address of the NMS where the server will send traps

Figure 30: The SNMP Service Configuration Window

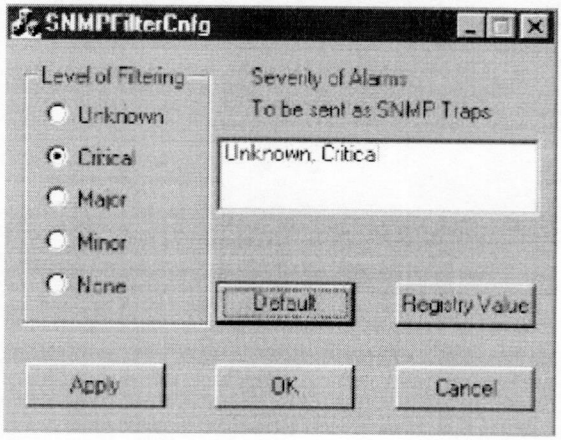


- Type the **IP address** of the NMS in the Host name, IP or IPX address data box and click the **Add** button
- Verify that your changes are correct on the SNMP Service Properties window and then click the **OK** button to close the window
- In the Services window, right-click on the **SNMP** service and click **Start** on the pop-up menu to start the SNMP service
- Close the Services window

Select the Types of Events to be Forwarded

- In the Windows Explorer, browse to the folder D:\Nortel\bin
- Double-click on the file **SNMPFilterCnfg.exe** to open the SNMPFilterCnfg window

Figure 31: The SNMPFilterCnfg Window



- Click to select the types of events that will be forwarded to the NMS
- Click **OK** to apply the settings and close the SNMPFilterCnfg window



Tip: *Your customer may require a specific event to be forwarded to their NMS. You can use the Event Preferences feature covered in this lesson to assign a higher priority to that event.*

For example, your customer requires all Unknown, Critical, and Major events forwarded to the NMS. They also want all occurrences of event 41553 to be forwarded to the NMS. Use the Event Preferences feature to change the priority of event 41553 to Major or Critical. Now this event is automatically forwarded to the NMS with all other selected events.

Configure the NMS

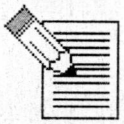
The following Symposium Call Center Server Management Information Block (MIB) files must be loaded or compiled on the NMS. These files configure the NMS to receive and interpret traps from the Symposium Call Center Server. The files are located on the Server Application CD in the data file and also on the Symposium Call Center Server in the path **D:\Nortel\data**

- nt-ref.mib (MIB-II)
- nbflt.mib (Ngen MIB)



Tip: *For more information about configuring your NMS, refer to the NMS documentation.*

Notes



Set a Default Printer

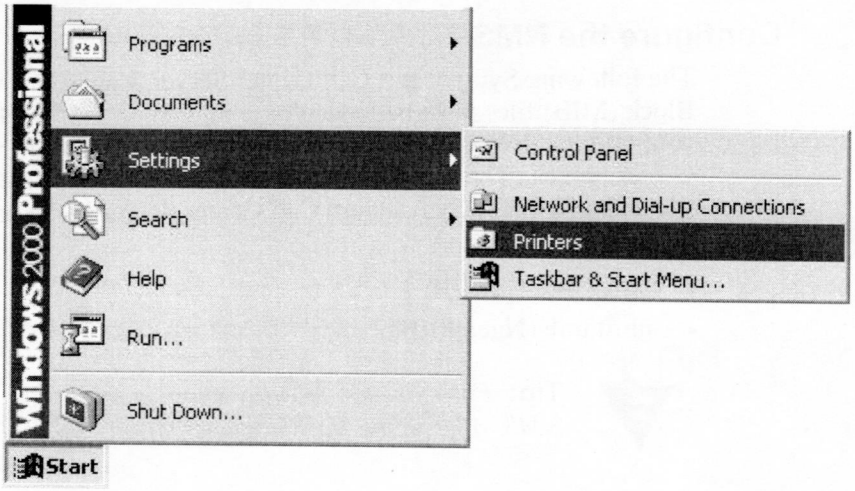
To perform certain call center functions, such as printing a configuration report or a scheduled report, a default printer must be configured on your Symposium Express Call Center client PC.

Follow the steps below to set a default printer for your client PC:

Tip: *If a default printer is not set, errors display and reports will spool on the client PC until the printer is available. This can take up memory and reduce the system resources available for call center operations.*

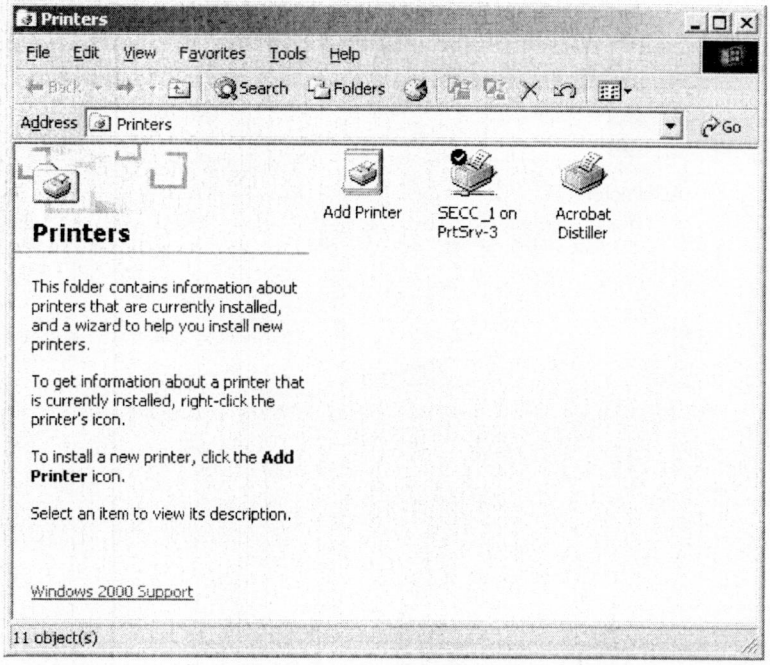
- From the **Start** menu, click on **Settings** and then **Printers.** The Printers window will open.

Figure 32: Opening the Printers Window



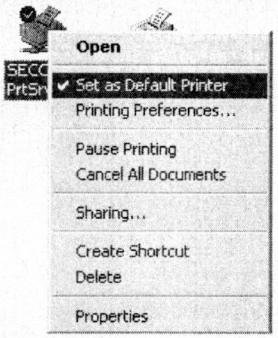
Notes

Figure 33: The Printers Window



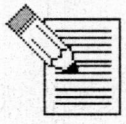
- If a list of network printers is displayed, right-click on the **printer** that you will use to print call center reports.

Figure 34: Set as Default Printer on the Drop-down Menu



- Click **Set as Default Printer** on the drop-down menu that opens.

Notes



- If the printer that you will use to print call center reports is not displayed in the Printers window, click the **Add Printer** icon and follow the instructions in the Add printer wizard to add the desired printer.

Figure 35: The Add Printers Icon



Notes



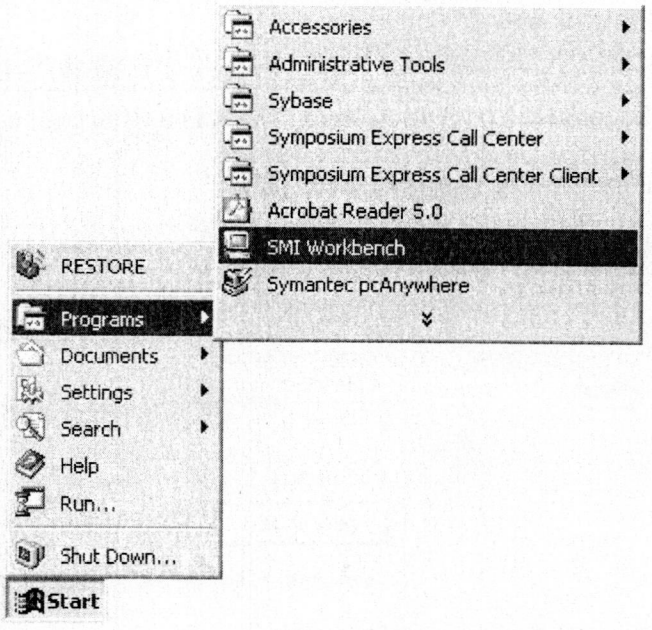
Add a System on the SMI Workbench

You must add a system on the SMI Workbench for each Symposium Express Call Center server that your client PC will connect to. When you add an SMI system, a system icon is created in the SMI Workbench folder that represents that server. When you double-click on a system icon, the SMI workbench initiates a connection to the server represented by the icon. When the connection is established, the Administration window opens. The Administration window contains the icons that you will use to access programs for administering and monitoring the Symposium Express Call Center.

Follow the steps below to add an SMI system:

- From the **Start** menu, select **Programs** and then **SMI Workbench**. The SMI Workbench folder opens.

Figure 36: Opening the SMI Workbench



Notes

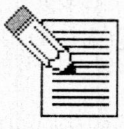
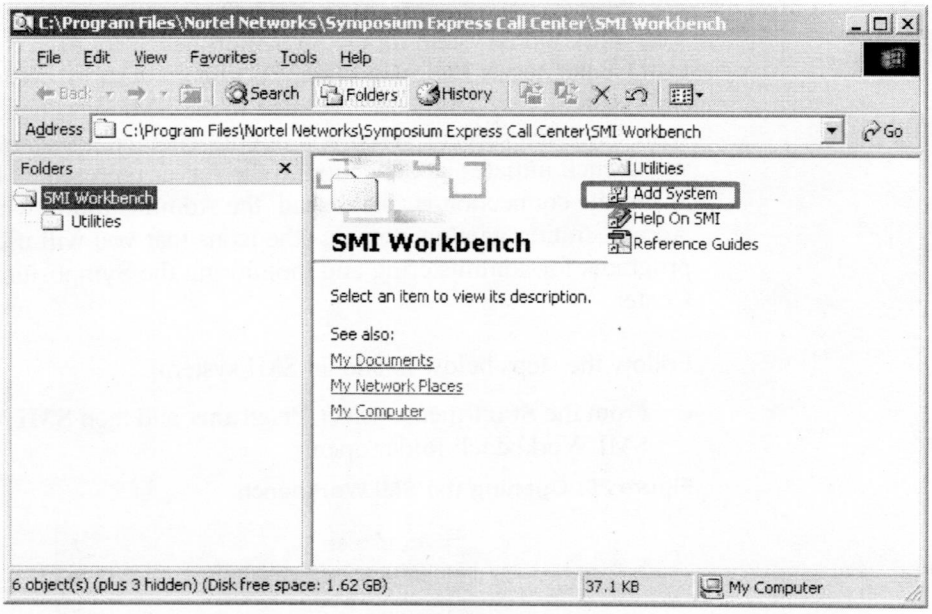
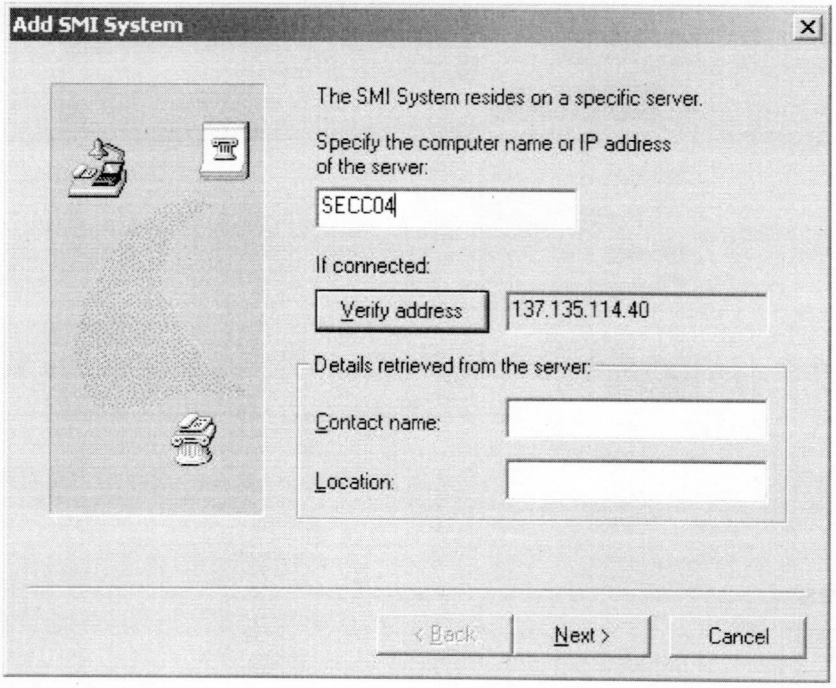


Figure 37: The SMI Workbench



- Double-click on **Add System**. The Add SMI System window opens

Figure 38: The Add SMI System Window



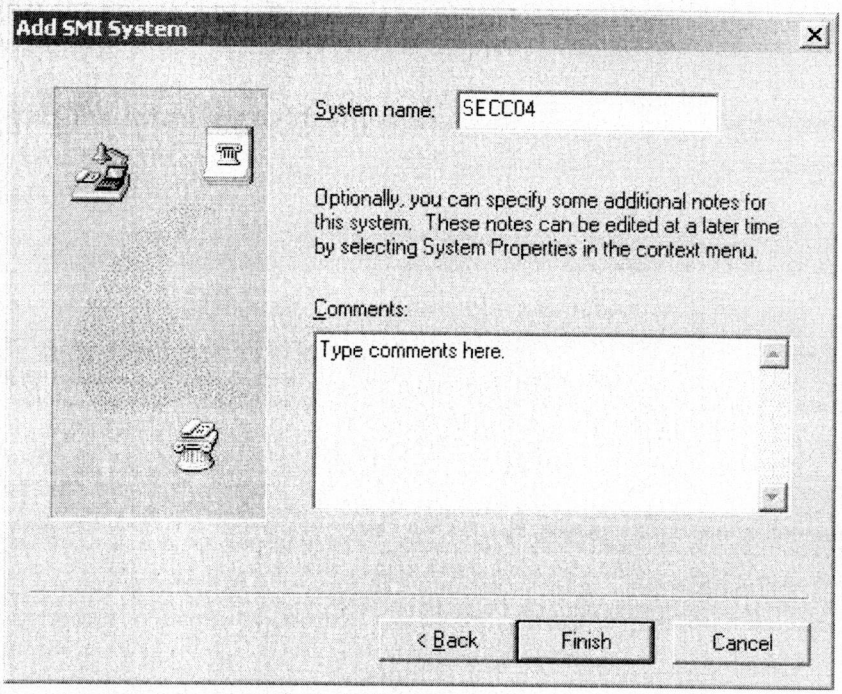
- Enter the **computer name** or **IP address** of the server in the Specify the computer name or IP address of the server dialog box.



Tip: *If you are using a dial-up connection to the server, you must enter the IP address and not the computer name.*

- If the client PC has a network connection to the server, click the **Verify Address** button to confirm that the address or computer name is correct.
- Click **Next**. The Add SMI System window opens.

Figure 39: The Add SMI System Window



- The System name will be the computer name of the server PC.
- Enter any **comments** about the system in the Comments dialog box.
- Click the **Finish** button; the SMI System icon is added to the SMI Workbench folder.

Notes

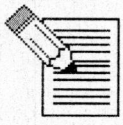
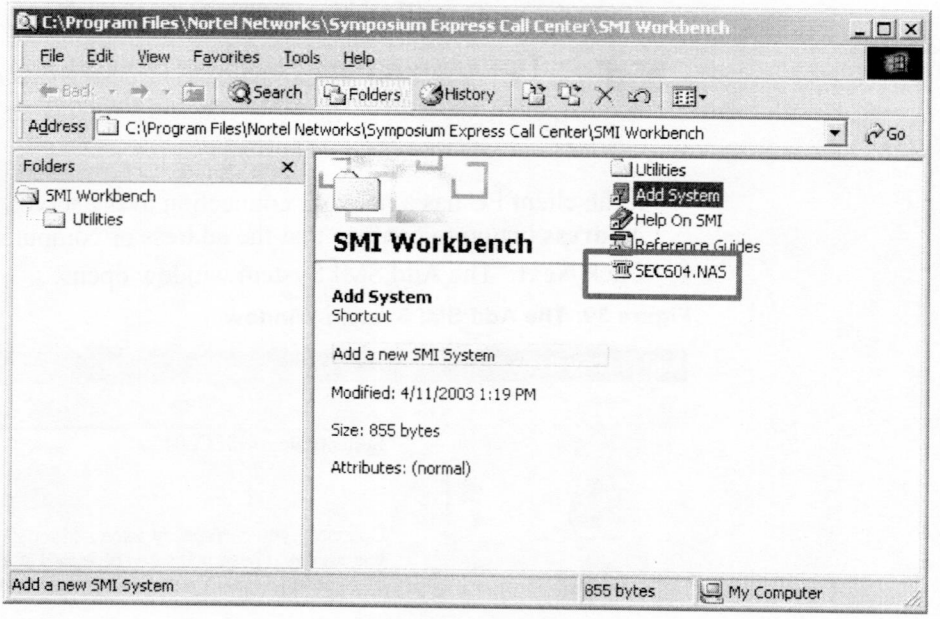


Figure 40: The New System Added to the SMI Workbench



Notes

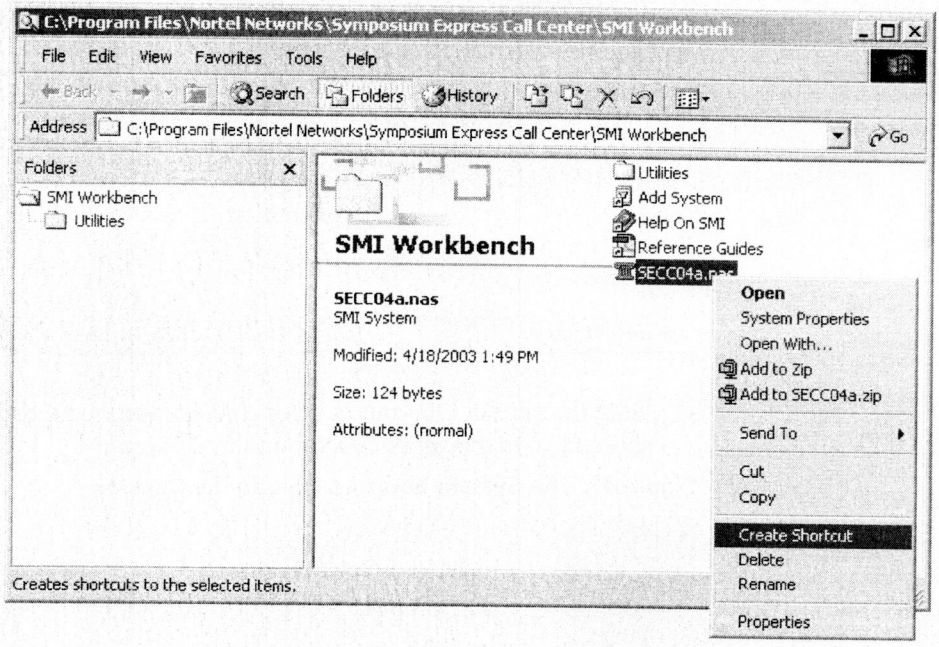


Add a Desktop Shortcut

Follow the steps below to create a desktop shortcut for your SMI system. The shortcut provides convenient access to the SMI window from your desktop:

- From the **Start** menu, select **Programs** and then **SMI Workbench**. The SMI Workbench folder opens.

Figure 41: Creating the Shortcut on the SMI Workbench



- In the SMI Workbench, right-click on the **SECC System** icon and click **Create Shortcut** on the drop-down menu. A shortcut icon to the SECC system is created in the SMI Workbench.

Notes

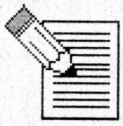
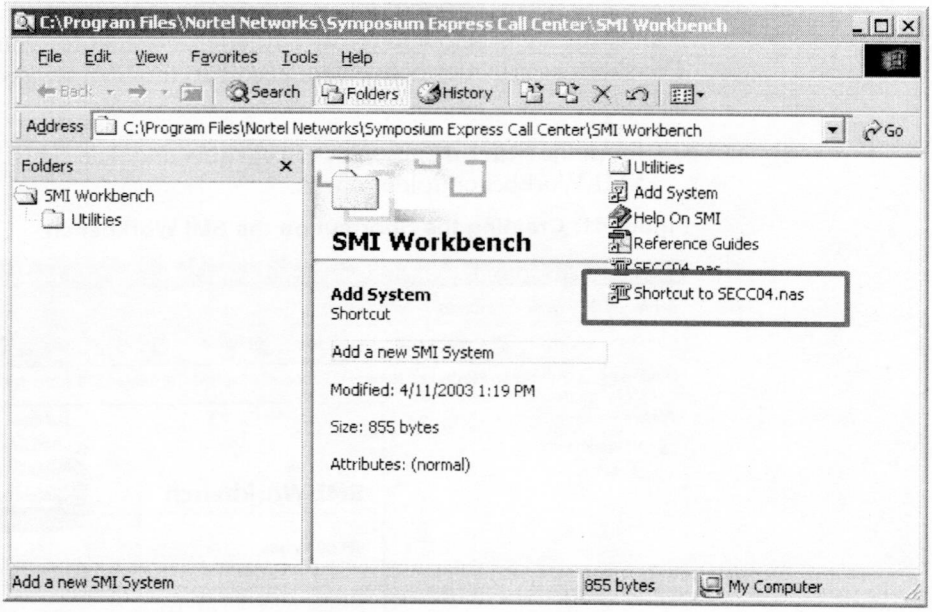


Figure 42: The System Shortcut on the SMI Workbench



- Drag the shortcut to your desktop and release the mouse button. The new shortcut will appear as an icon on the desktop.

Figure 43: The System Shortcut Icon on the Desktop



Notes



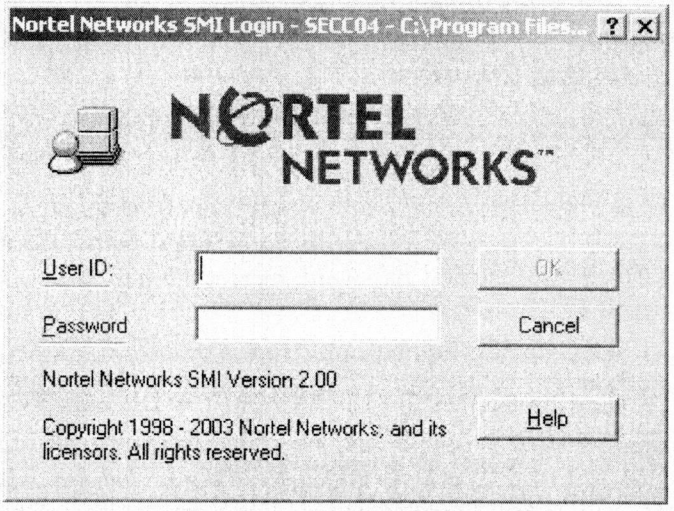
Log On to the Server

Follow the procedure below to log on to the systems that you have configured:

Tip: *The first time that you log on to the Symposium Express Call Center server, the End User License Agreement window will open. Only the system administrator can accept this agreement. For this reason, the system administrator must log on to the server first.*

- Double-click on the **System** icon for the server that you need to connect with. The Nortel Networks SMI Logon window opens.

Figure 44: The Nortel Networks SMI Logon Window



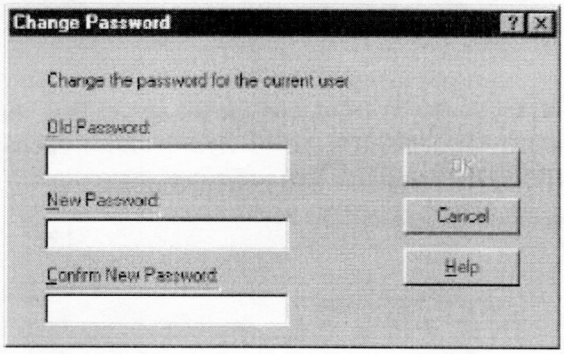
- For the user ID, type **sysadmin** (this is the default user ID).
- For the password, type **nortel** (this is the default password).

Tip: *The user ID and Password are case sensitive.*

Notes

- Click **OK** to enter the user ID and Password. If this is the first time that the system administrator has logged on, the End User License Agreement window will open.
- Click **Accept** to accept the license agreement. If this is the first time that the system administrator has logged on, the password must be changed from the default settings.
- The Change Password dialog box opens.

Figure 45: The Change Password Dialog Box



- For Old Password, enter the **default password**.
- For New Password, enter a **new password** for the system administrator.
- To confirm the new password, reenter the **new password** in the Confirm New Password box.
- Click **OK**. The Symposium Express Call Center Administration window opens.

Tip: *If the IP address is incorrect or the link between the server and client PCs is not connected, you will see the following message:*
"IP address is unreachable. Connection failed."

Notes



Practice

Post-installation Tasks Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

5. What is the result if you attempt to log on to a Symposium Express Call Center system from a stand-alone client PC if the IP address for the server PC is incorrect or the link between the server and client PCs is not connected?

- a. The client PC will lock up and need to be rebooted.
- b. You will receive the message: "IP address is unreachable. Connection failed."
- c. The Symposium Express Call Center Administration window will open, but no program icons will display.
- d. The client PC will continue to attempt to connect until the link between the server and client PCs is restored.

Select Answer

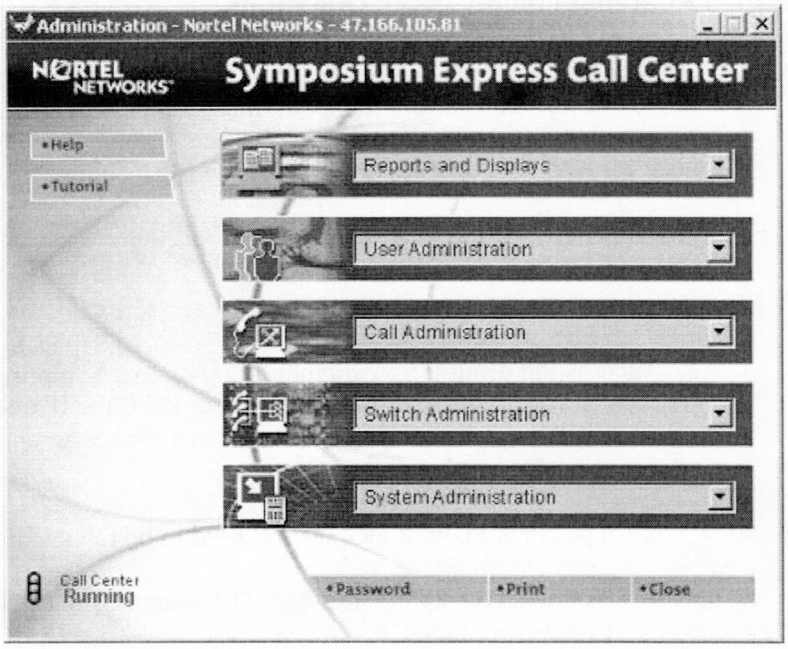
6. When adding a Symposium Express Call Center system on the SMI Workbench, if you are using a dial-up connection to the server, you must enter the IP address and not the computer name in the Specify the computer name or IP address of the server dialog box on the Add SMI System window.

- a. True
- b. False

reset

The Symposium Express Call Center Client Interface

Figure 46: Main Client Window



Administrative Tasks

The Administration window contains icons and hot buttons that provide the following functionality:

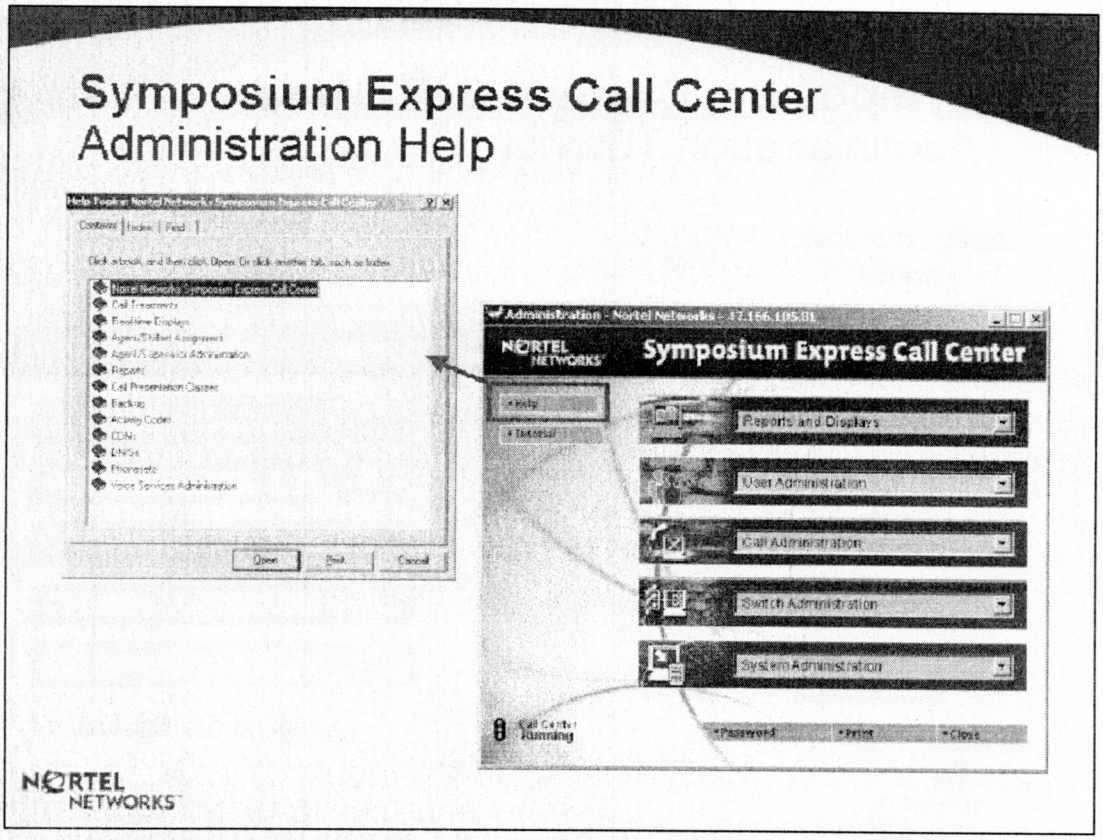
- Run tutorials and view online documentation
- View online Help
- Change password
- View and print the Call Center Configuration report
- Enter and Exit the Emergency Mode
- Close all of the windows and disconnect from the Symposium Express Call Center

Notes



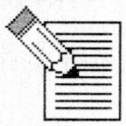
Help

Figure 47: Administration Help



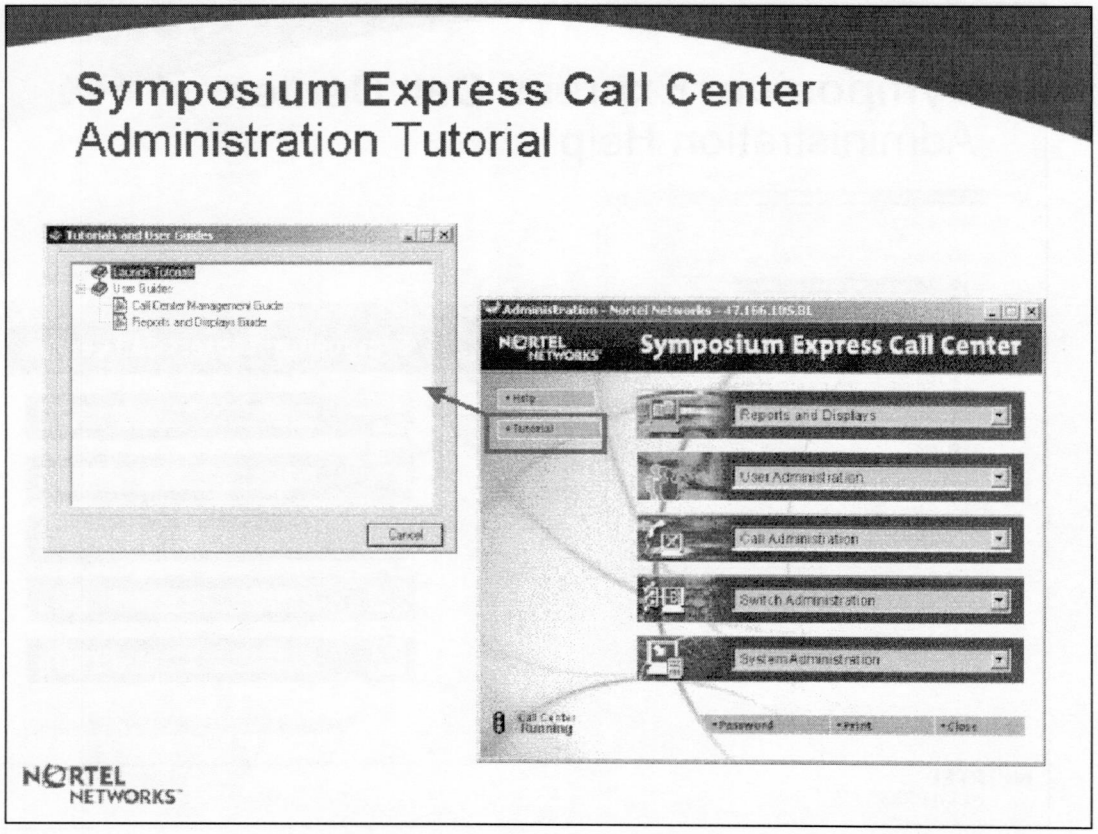
Click the **Help** button to access the online Help files.

Notes



Tutorials

Figure 48: Administration Tutorials



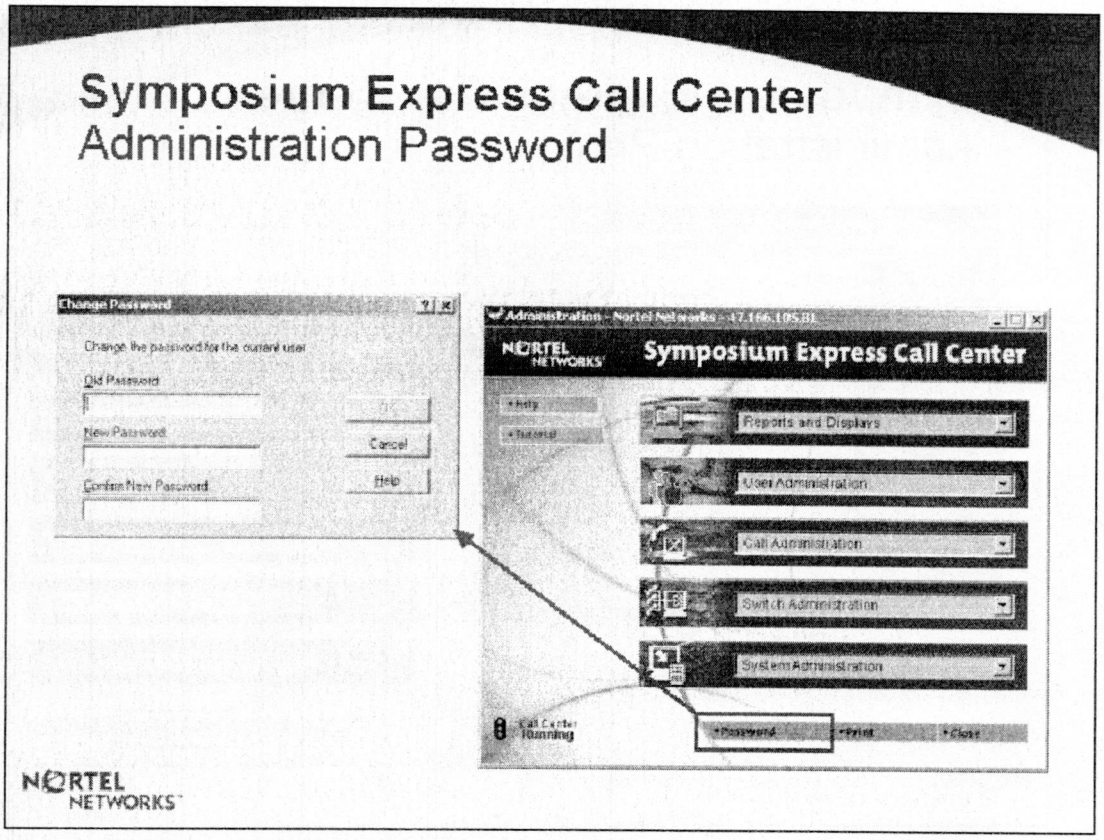
Click the **Tutorial** button to launch the online Tutorials.

Notes



Password Change

Figure 49: Administration Password

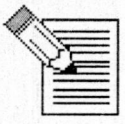


Click the **Password** button to Change the current logged in Administrator's password.

Nortel Networks recommends that you change passwords regularly to maintain the security of your call center. Set the passwords to meet the following requirements:

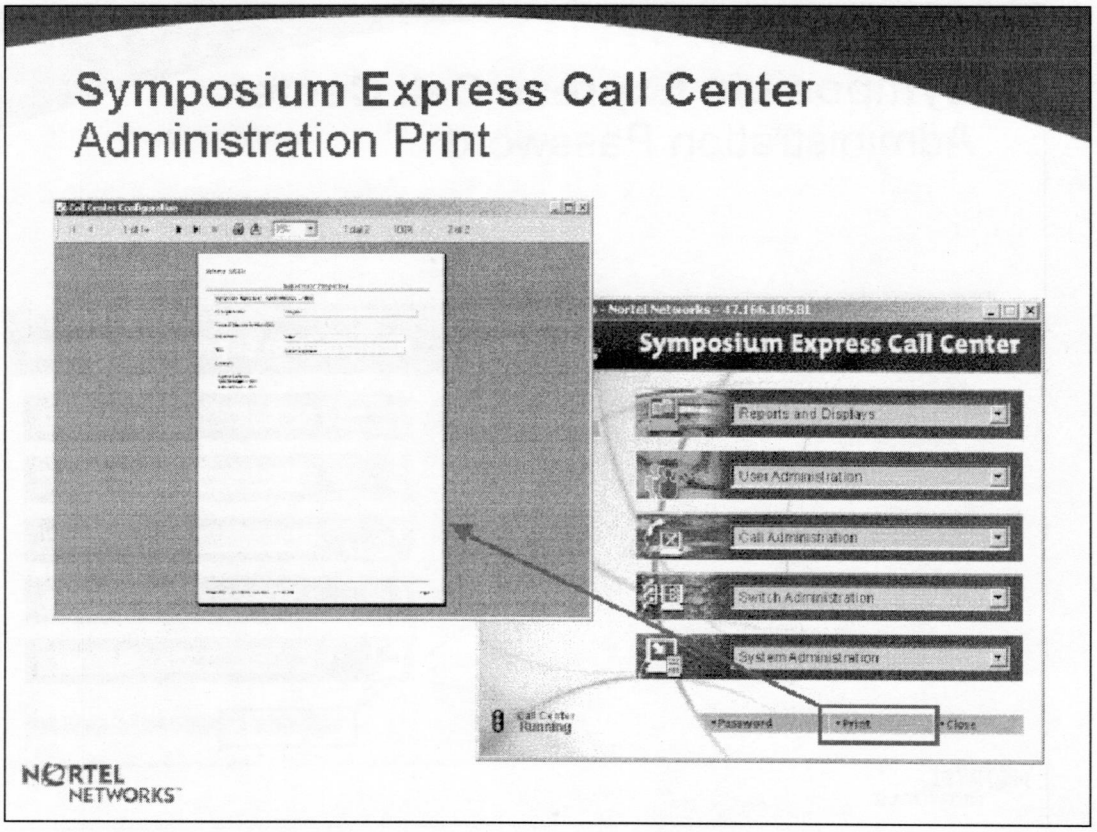
- The password must be six to ten characters in length.
- The password must contain both upper and lower case letters and numbers.
- The password must not consist of common words or nouns.

Notes



Print Configuration Reports

Figure 50: Administration Print



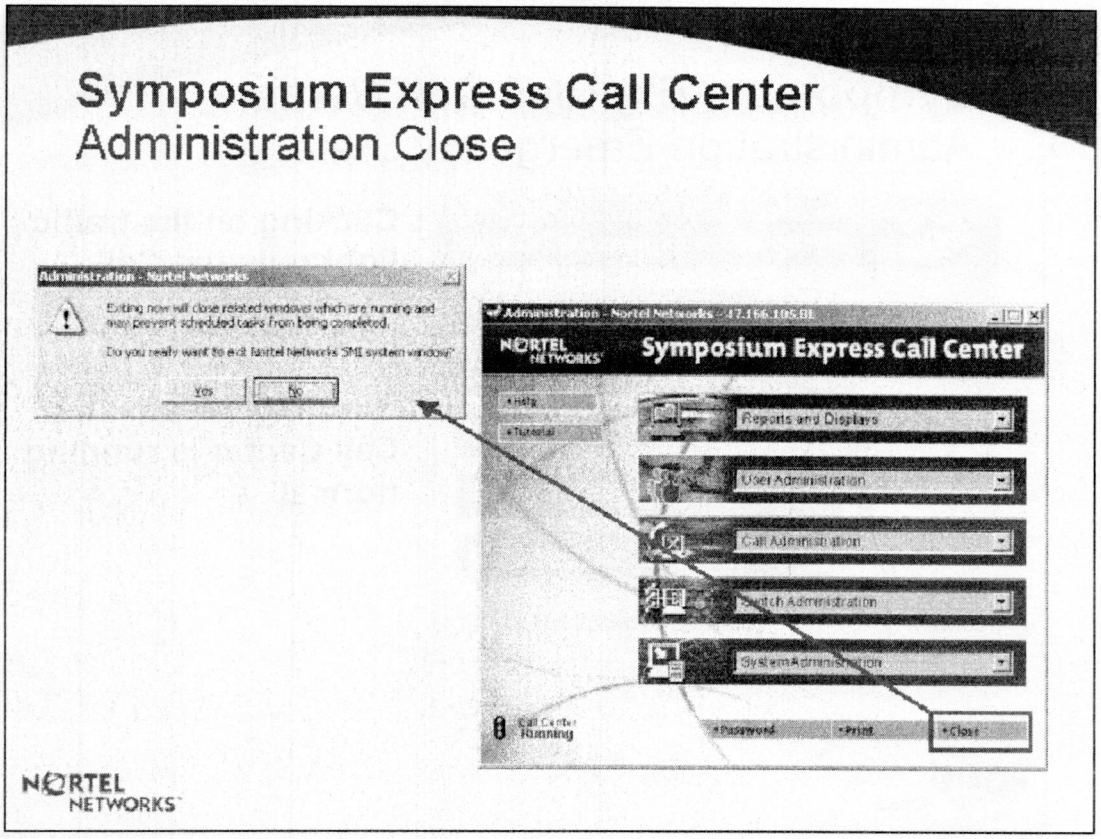
Click the **Print** button to print the Configuration reports.

Notes



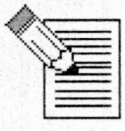
Log Off the Call Center

Figure 51: Administration Close



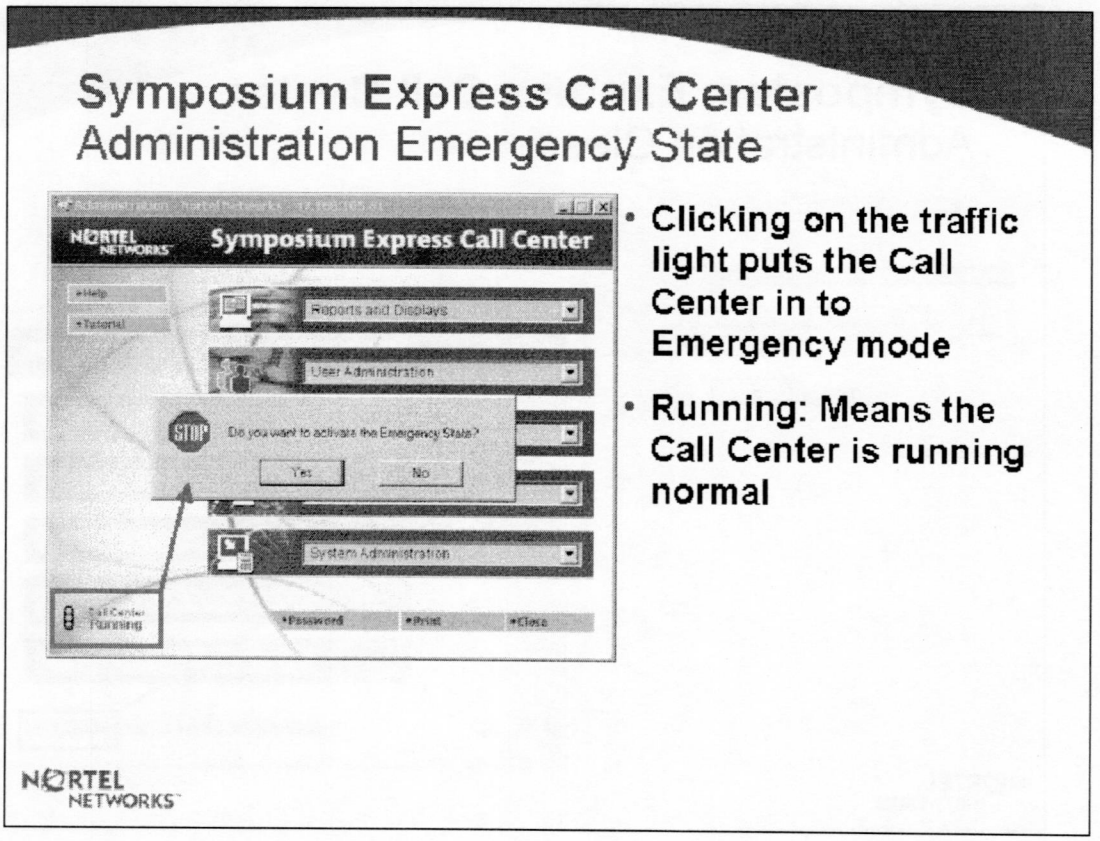
Click the **Close** button to close all open administration windows and disconnect from the Symposium Express Call Center.

Notes



Activate and Deactivate the Call Center Emergency State

Figure 52: Administration, Activate the Emergency State

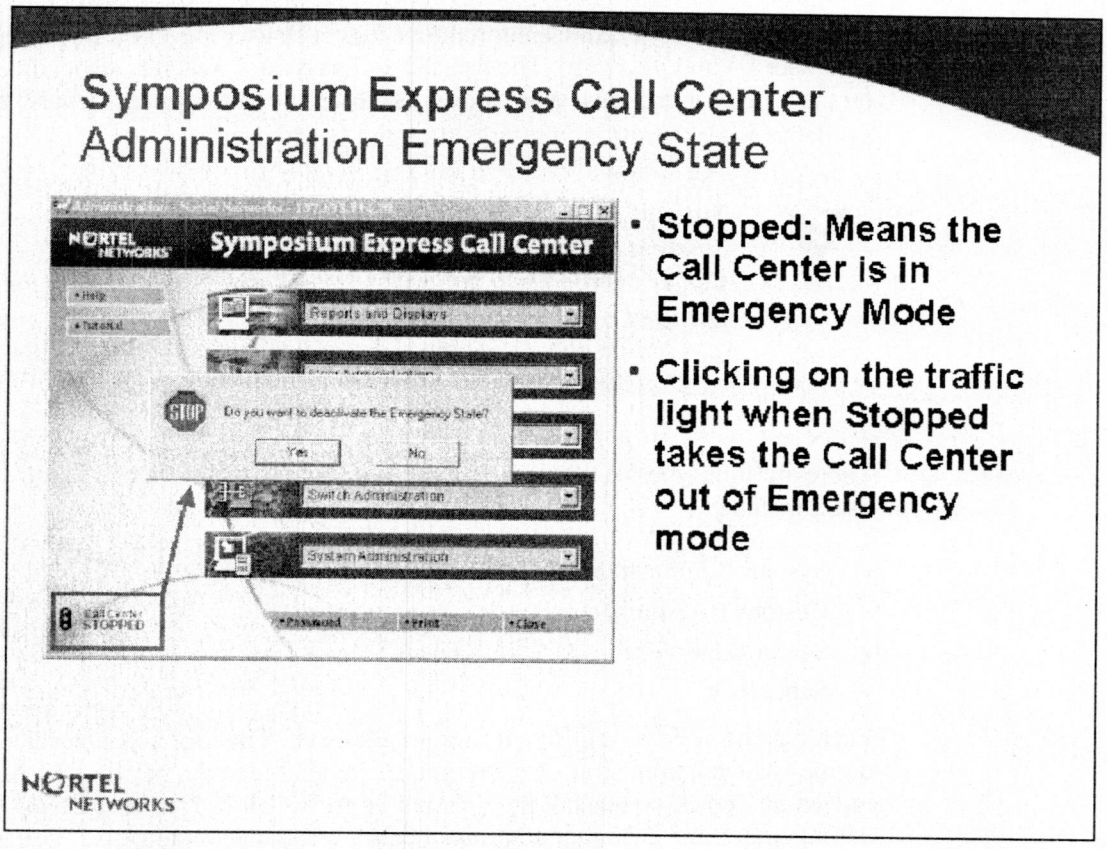


When the call center is running, click the **Traffic Light** to activate the Emergency State.

Notes



Figure 53: Administration, Deactivate the Emergency State



When the call center is stopped, click the **Traffic Light** to deactivate the Emergency State.

Notes



User Access Levels

Symposium Express Call Center requires that each user log in by supplying their user ID and password. The user ID and password will vary depending on the type of user. Each type of user has different system access levels. The available access levels are preset and cannot be changed.



Tip: *Windows NT has a User ID and password that is different than the one used for Symposium Express Call Center. If you use a different User ID and password from the one used when installing Symposium Express Call Center, you may not be able to see the shortcut icon created on the desktop that is used to access the system.*

There are four types of users on Symposium Express Call Center. These users include:

- System Administrator (user ID **sysadmin**)
- Customer Administrator (user ID **custadmin**)
- Senior Supervisor
- Supervisor

Each type of user has a different user access level. The user access level defines which administrative operations are available to the person who has logged in. When you install Symposium Express Call Center the system administrator and customer administrator are created automatically. You must add each supervisor and senior supervisor individually. The access levels are defined in the following section.



Tip: *Agents do not have PC User IDs. They only log in to their phonesets.*



Tip: *When you install Symposium Express Call Center, the System Administrator and Customer Administrator are created automatically. You must add Senior Supervisors and Supervisors individually.*

Notes



System Administrator

The System Administrator (SysAdmin) has the following access privileges:

- Full system access (view only access to scripts)
- Specific access to advanced and import functions

The System Administrator's PC User ID is ***sysadmin*** and the default password is ***nortel***.

Customer Administrator

The Customer Administrator (CustAdmin) has the following access privileges:

- No access to advanced or import functions
- Access to all other functions associated with drop-down menus on main window
- Cannot update the switch resources

Customer Administrator's PC User ID is ***custadmin*** and default password is also ***custadmin***.

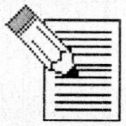
Supervisors and Senior Supervisors

All supervisors and senior supervisors on the Symposium Express Call Center system can perform the following tasks:

- Run any report
- Use real-time displays to view agents assigned to them
- View and edit agent-to-skillset assignments for agents assigned to them
- View all online tutorials

All supervisors and senior supervisors User IDs are assigned when the supervisor is created. The default password is the same as the User ID.

Notes



Senior Supervisors Privileges

Senior Supervisors have the same general access privileges as Supervisors and can also perform these additional tasks:

- View all call center operations under the control of a specific supervisor
- View the configuration properties of all agents in the call center (not only the agents assigned to him or her)

Supervisor Limitations

Supervisors cannot perform the following tasks:

- Add or remove either the agent or the supervisor attribute for any user
- View the Expected Wait Time and Position in Queue statistics
- View Call Priority
- View the Alarm Monitor window
- View the Stop button

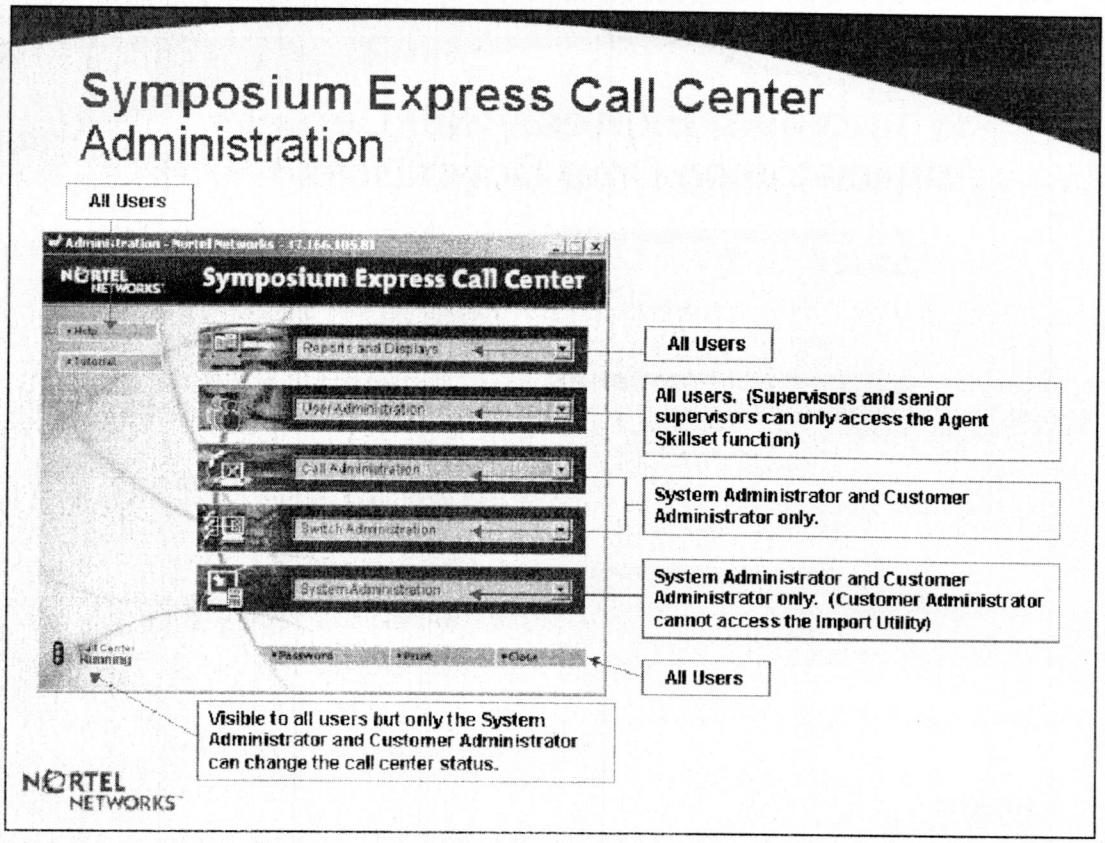
Notes



Access Level and the Symposium Express Call Center Client

The appearance of the Symposium Express Call Center client window will change depending on the access level of the user that logs on.

Figure 54: The User Access on the Symposium Express Call Center Client

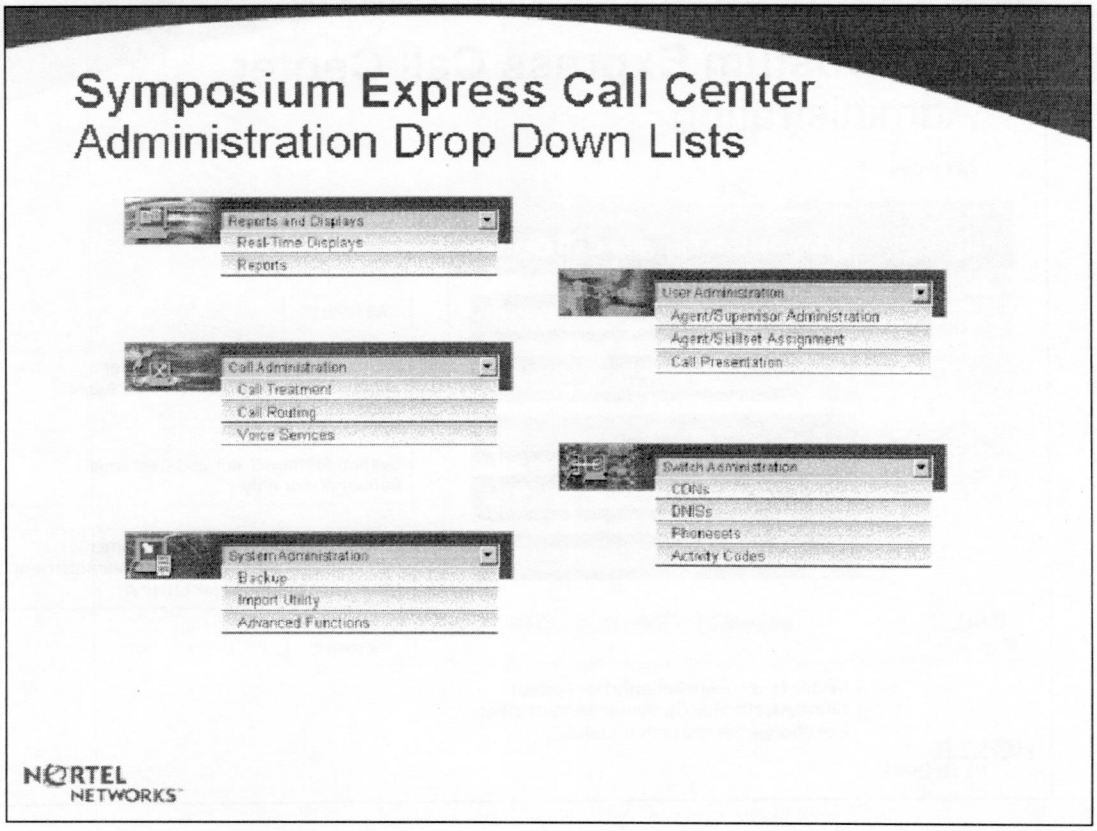


Notes

The System Administrator's View of the Drop-down Lists

The System Administrator's view of the drop-down lists on the Symposium Express Call Center client window is shown in the following figure. This is the top level of system access, so all functions are displayed.

Figure 55: Administration Drop-down Lists



All administrative tasks are accessed through five drop-down lists:

- Reports and Displays
- User Administration
- Call Administration
- Switch Administration
- System Administration

Reports and Displays

Use the Reports and Displays drop-down list to access the following tasks:

- View real-time displays and set display thresholds
- Run and configure reports

User Administration

Use the User Administration drop-down list to access the following tasks:

- Create and administer agents and supervisors
- Administer agent to skillset assignments
- Configure call presentation classes

Call Administration

Use the Call Administration drop-down list to access the following tasks:

- Configure call routing
- Configure how calls are treated when they are presented to Symposium Express Call Center
- Configure Voice Services announcements

Switch Administration

Use the Switch Administration drop-down list to access the following tasks:

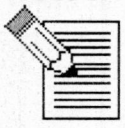
- Configure phonesets
- Configure CDNs
- Configure DNISs
- Configure activity codes

System Administration

Use the System Administration drop-down list to access the following tasks:

- Run Symposium Express Call Center database backups
- Import data from the switch
- Access the system tree to perform advanced functions

Notes

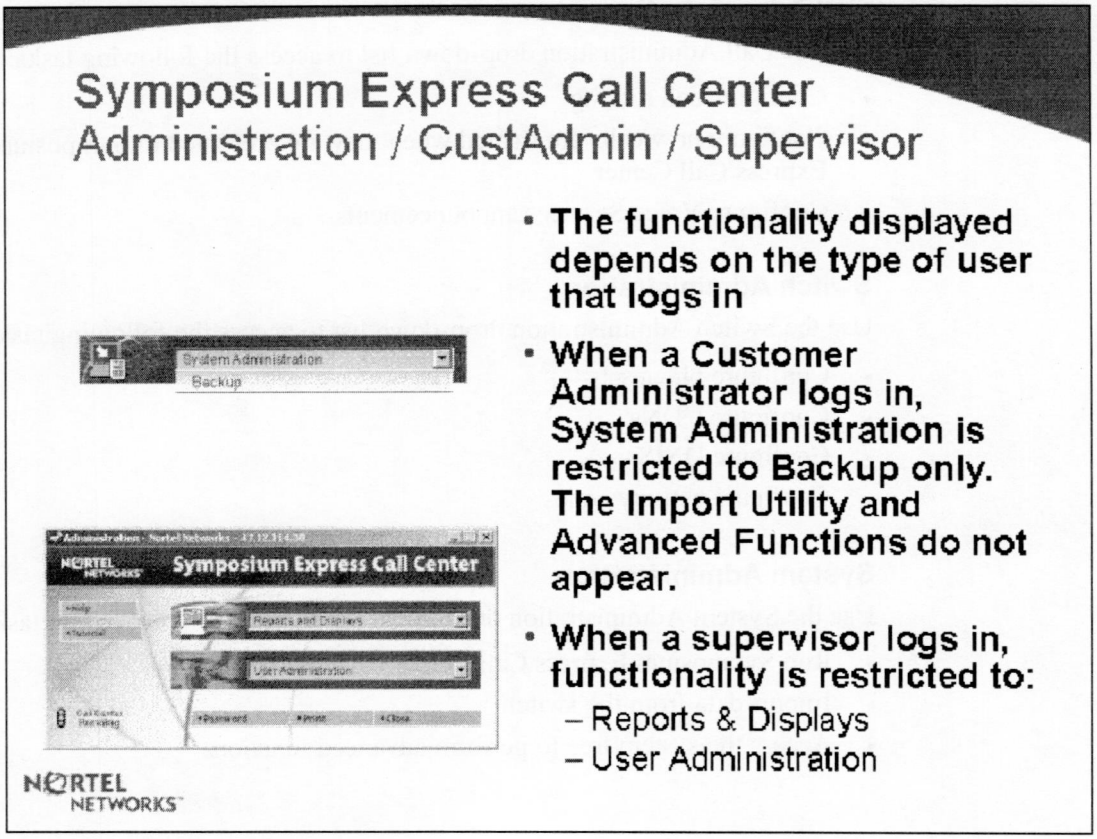


Client View for Customer Administrators and Supervisors

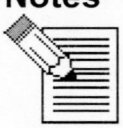
When a user with a lower access level is logged in, the client will display only those tasks that that access level is authorized to perform. For example, when a Customer Administrator logs in, the System Administration drop-down list contains only Backup. The Import Utility and Advanced Functions, which are restricted to the System Administrator access level, are removed.

When a Supervisor or Senior Supervisor logs in, the Symposium Express Call Center client window only displays the Reports and Displays and the User Administration drop-down lists.

Figure 56: Administration / Customer Administrator / Supervisor View



Notes



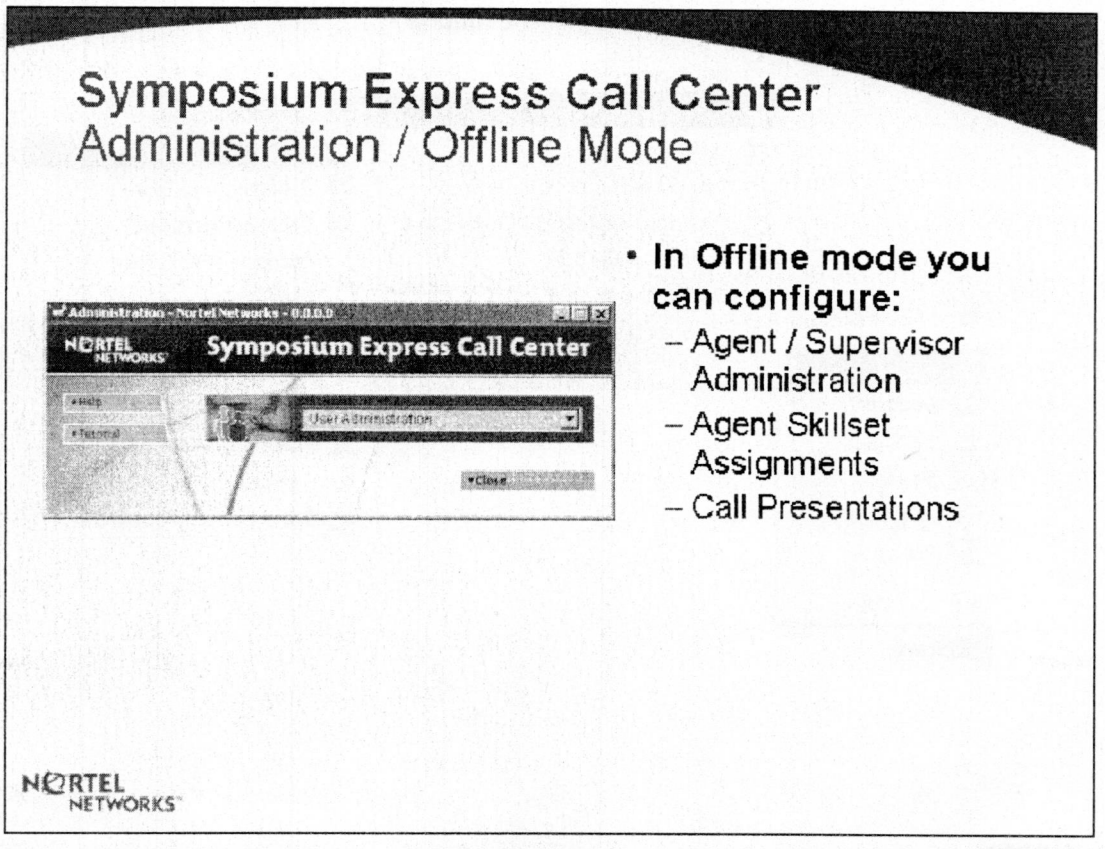
The Symposium Express Call Center Client in Offline Mode

Symposium Express Call Center provides the ability to work in an offline mode on a client PC. In the offline mode an administrator has the ability to configure users, skillsets, agent assignments, and call presentation classes. This configuration data is then imported to a Symposium Express Call Center server using the Import Utility.

This feature allows distributors to set up and test customer systems before going on-site, which reduces setup costs and time required to configure a system.

In offline mode, the Symposium Express Call Center client is not connected to a server and only the User Administration drop-down list is displayed.

Figure 57: Administration / Offline Mode



Changing the Windows Passwords

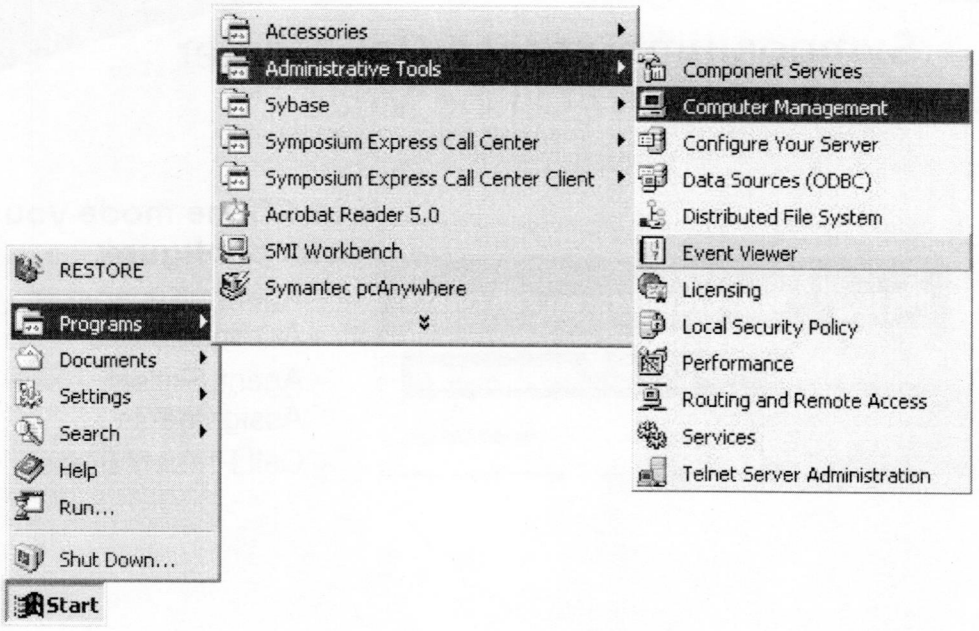
NGenDist and NGenDesign are Windows remote access accounts created during the server software installation. They are intended for the distributor or Nortel Networks Customer Support representative when access to the Symposium Express Call Center server is required for troubleshooting from a remote location.

Tip: *You do not need to know the default passwords for these user accounts in order to change the passwords.*

Follow the steps below to change the NGenDist and NGenDesign passwords:

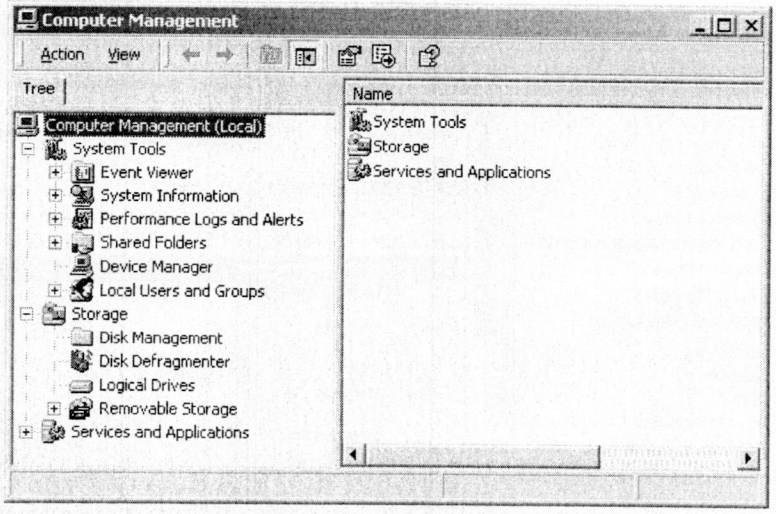
- Ensure that you are logged in to Windows as NGenSys.
- From the **Start** menu, select **Programs**, **Administrative Tools**, and then **Computer Management**. The Computer Management window opens.

Figure 58: Opening the Computer Management Window



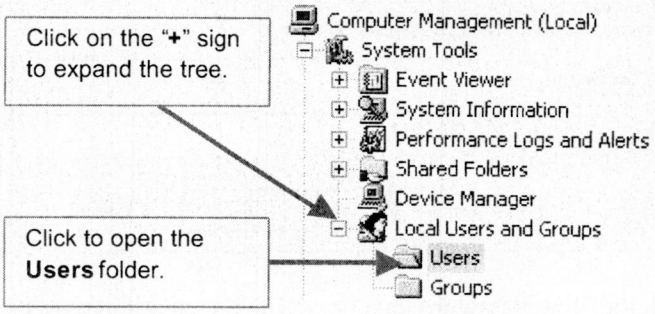
Notes

Figure 59: The Computer Management Window



- On the Computer Management window, click the "+" sign next to Local Users and Groups under System Tools to expand the tree and click to open the **Users** folder.

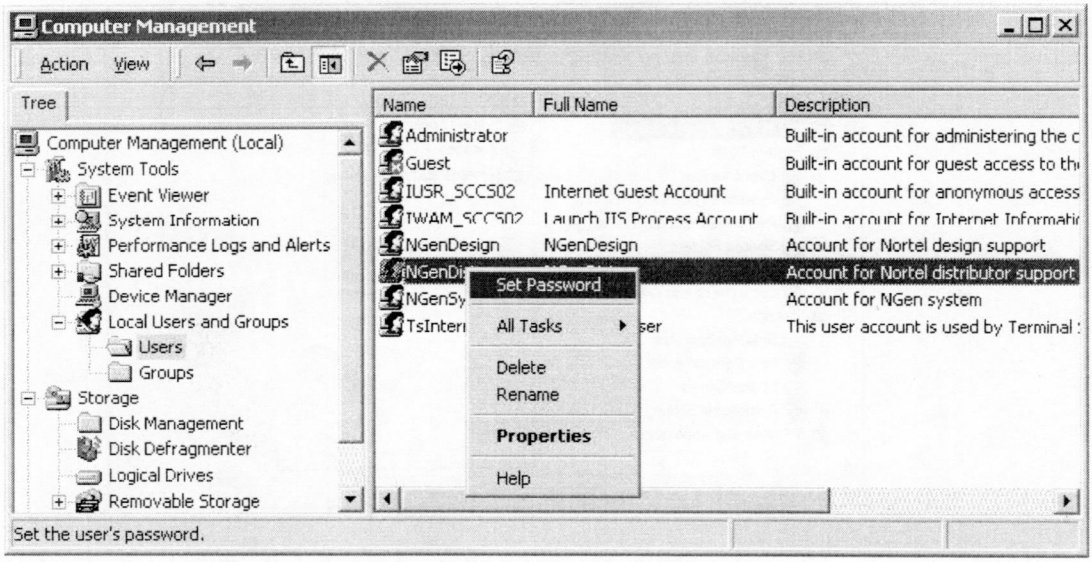
Figure 60: Opening the User Folder on the Computer Management Window



Notes

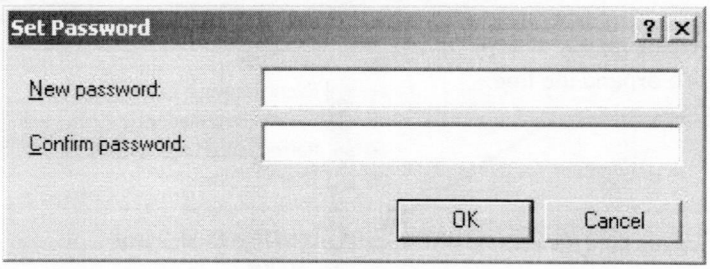


Figure 61: Opening the Set Password Dialog From the Computer Management Window



- Right-click on the user name **NGenDist** and click on **Set Password** on the drop-down menu. The Set Password dialog box opens.

Figure 62: The Set Password Dialog Box



- In the New Password data box, type the **new password**.
- In the Confirm Password data box, type the **new password** again.
- Click **OK** to close the Set Password dialog box and set the new password.
- Repeat these steps for the NGenDesign password.
- Click on **Exit** to close the Computer Management window.

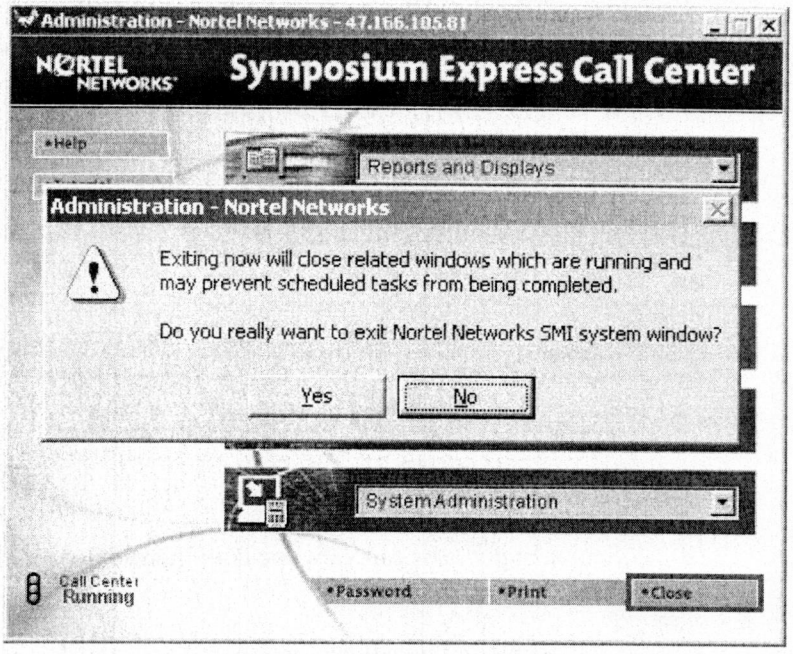
Notes



Logging Off from the Symposium Express Call Center

To log off from the Symposium Express Call Center server, click the **Close** button at the bottom of the Symposium Express Call Center Administration window. On the Administration message that opens, click **Yes** to confirm your intent to log off.

Figure 63: The Close Button at the Bottom to the Administration Window



Notes





Practice

Post-installation Tasks Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

7. Only the sysadmin user has access to Advanced Functions and Import.

- a. True
- b. False

Select Answer

8. A Senior Supervisor can view the configuration properties of which agents?

- a. All agents in the call center
- b. Only those agents that are assigned to them
- c. Only those agents that are assigned to a Supervisor who is assigned to them
- d. A Senior Supervisor cannot view any agent configuration properties

reset

9. How do you activate the Emergency State on the System Administrator's view of the Symposium Express Call Center client window?

- a. Click the "X" at the upper right-hand corner of the client window
- b. Click the Stop sign on the center of the bottom edge of the client window
- c. Click the Close button on the lower right-hand corner of the client window
- d. Click the green Traffic Light icon on the lower left-hand corner of the client window

Select Answer

10. Which of the following recommendations are valid for passwords?

- a. The password must be six to ten characters in length.
- b. The password must contain both upper and lower case letters and numbers.
- c. The password must not consist of common words or nouns.
- d. All of the above are valid recommendations.

reset



Answers to Practice

Post-installation Tasks Questions

Check your answers to the practice.

1. With Symposium Express Call Center, when will the NCCOAM service change to have a NCCOAM_UP status on the SMonW window?

   a. After the scripts have started

   b. After the server has fully booted

   c. After the Call Treatments have been configured and the Call Routing Wizard has run

   d. The NCCOAM service only changes to NCCOAM_UP on a Network Control Center server in a Symposium network

2. Which service on the Symposium Express Call Center SMonW window manages all of the statistical collection services?

   a. IS

   b. HDC

   c. SDP

   d. SDMCA

3. Which Windows remote user accounts, created during the Symposium Express Call Center server application software installation, must be added to the Caller list on the pcAnywhere Host Properties: NETWORK, CABLE, DSL window when you are configuring pcAnywhere Host Only as a Host PC?

   a. NGenSys and sysadmin

   b. sysadmin and custadmin

   c. NGenDist and NGenDesign

   d. Supervisor and Senior Supervisor

4. When configuring pcAnywhere application as a host on the Symposium Express Call Center server PC, what must be checked on the Device list on the Connection Info tab of the pcAnywhere Host Properties: Network, Cable, DSL window?

   a. COM1

   b. COM2

   c. TCP/IP

   d. ISDN via CAPI 2.0

5. What is the result if you attempt to log on to a Symposium Express Call Center system from a stand-alone client PC if the IP address for the server PC is incorrect or the link between the server and client PCs is not connected?

   a. The client PC will lock-up and need to be rebooted.

   b. You will receive the message: "IP address is unreachable. Connection failed."

   c. The Symposium Express Call Center Administration window will open, but no program icons will display.

   d. The client PC will continue to attempt to connect until the link between the server and client PCs is restored.

6. When adding a Symposium Express Call Center system on the SMI Workbench, if you are using a dial-up connection to the server, you must enter the IP address and not the computer name in the Specify the computer name or IP address of the server dialog box on the Add SMI System window.

   a. True

   b. False

7. Only the Sysadmin user has access to Advanced Functions and Import.

   a. True

   b. False

8. A Senior Supervisor can view the configuration properties of which agents?

   a. All agents in the call center

   b. Only those agents that are assigned to them

   c. Only those agents that are assigned to a Supervisor who is assigned to them

   d. A Senior Supervisor cannot view any agent configuration properties

9. How do you activate the Emergency State on the System Administrator's view of the Symposium Express Call Center client window?

   a. Click the "X" at the upper right-hand corner of the client window

   b. Click the Stop sign on the center of the bottom edge of the client window

   c. Click the Close button on the lower right-hand corner of the client window

   d. Click the green Traffic Light icon on the lower left-hand corner of the client window

10. Which of the following recommendations are valid for passwords?

    a. The password must be six to ten characters in length.

    b. The password must contain both upper and lower case letters and numbers.

    c. The password must not consist of common words or nouns.

    d. All of the above are valid recommendations.



Skill Check

Post-installation Tasks

Complete the post-installation tasks listed below on your Symposium Express Call Center PVI server and stand-alone client PC using the CD-ROMs provided by your instructor, the Classroom Resource Sheet, and Installation Worksheets. You may use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide* as reference material for this Skill Check.

If the equipment is not available, write out the procedures that you need to follow to complete the tasks.

1. Restart the Symposium Express Call Center PVI server and verify the services on the SMonW:
2. Install the pcAnywhere Host Only application software on your Symposium Express Call Center PVI server:
3. Configure pcAnywhere Host Only on the Symposium Express Call Center PVI server as a Host PC:
4. Add systems on the SMI Workbench and Add shortcuts to the desktop:
5. Log on to the Symposium Express Call Center and verify functions:
6. Change the Windows passwords for the Symposium Express Call Center PVI server
7. Log off of the Symposium Express Call Center client interface:
   - Log off from the co-resident client
   - Log off from the stand-alone client PC



Skill Check Feedback

Post-installation Tasks

Use the checklists below to verify of the post-installation tasks.

Step	Restart the Symposium Express Call Center PVI server and verify the services on the SMonW	V
1.	Log on as **NGenSys**	
2.	Click on **Start**, **Programs**, **Symposium Express Call Center**, **System Monitor** to open the System Monitor Window (SMonW)	
3.	Verify the services as listed on Table: 1	

Step	Install the pcAnywhere Host Only application software on your Symposium Express Call Center PVI server	V
1.	Shut down the services on the Symposium Express Call Center PVI server	
2.	Log on to the server PC as the Windows 2000 Administrator	
3.	Insert the NTJK08AA pcAnywhere Host-Only CD in the CD-ROM drive If the program does not automatically begin the installation process, open the Windows Explorer and browse to: **E:\pcAnywhere.exe** (where E: is your CD-ROM drive) Double-click on the program **pcAnywhere.exe** to activate the Symantec installation wizard	
4.	Complete the installation wizard and install the application	

Step	Configure pcAnywhere Host Only on the Symposium Express Call Center PVI server as a Host PC	V
1.	Configure the Active Desktop settings on the server: • Right-click anywhere on the server desktop. • On the resulting pop-up menu, highlight Active Desktop until another pop-up menu appears. • On this pop-up menu, ensure that Show Web Content is not selected.	

Step	Configure pcAnywhere Host Only on the Symposium Express Call Center PVI server as a Host PC Continued	V
2.	Configure the pcAnywhere software to allow Nortel Networks support personnel remote access to your server PC: • From the **Start** menu, click on **Programs** and then pcAnywhere to open the pcAnywhere Manager window • Right-click the **Network, Cable, DSL** icon, and then choose **Properties** • Click the **Connection Info** tab on the pcAnywhere Host Properties: Network, Cable, DSL window and ensure that only **TCP/IP** is checked • Click the **Settings** tab and ensure that the **Launch with Windows** and **Run minimized** settings are selected • Click the **Callers** tab and from the **Authentication type** drop-down list, select **NT** • Configure NGenDist – Click the **New Item** button and add the NGenDist account – On the New Caller window, **Identification** tab, ensure that the **User** radio button is selected – From the **Domain** drop-down list, select the computer name of the server – From the **Account** drop-down list, select **NGenDist** and click **Apply** to save your changes – Click the **Callback** tab and ensure that the **Callback the remote user** check box is not checked – Click the **Privileges** tab, select the **Superuser** radio button, and click **Apply** to save your changes – Click **OK** to save the NGenDist caller account settings • Configure NGenDist – Click the **New Item** button and add the NGenDesign account – On the New Caller window, **Identification** tab, ensure that the **User** radio button is selected – From the **Domain** drop-down list, select the computer name of the server – From the **Account** drop-down list, select NGenDesign and click **Apply** to save your changes – Click the **Callback** tab and ensure that the **Callback the remote user** check box is not checked – Click the **Privileges** tab, select the **Superuser** radio button, and click **Apply** to save your changes – Click **OK** to save the NGenDesign caller account settings • Click the **Security Options** tab on the pcAnywhere Host Properties: Network, Cable, DSL window and set the security settings (the default settings are correct for this Skill Check) • Click the **Conference** tab and Ensure that **Enable conferencing** and **Obtain IP address automatically** are selected • Click **Apply** to save your changes click **OK** to apply all pcAnywhere Host PC settings • Click **Exit** to close the pcAnywhere Manager window	

Step	Add systems on the SMI Workbench and Add shortcuts to the desktop	V
1.	Add a system on the SMI Workbench on the co-resident client for your Symposium Express Call Center server: • From the **Start** menu, select **Programs** and then **SMI Workbench** • Double-click on **Add System** • Enter the computer name or IP address of the server in the **Specify the computer name or IP address** dialog box • Click the **Verify Address** button to confirm that the address or computer name is correct • Click **Next** • Enter any comments about the system in the Comments dialog box • Click the **Finish** button; the SMI System icon is added to the SMI Workbench folder	
2.	Add a system on the SMI Workbench on the stand-alone client for your Symposium Express Call Center server: • From the **Start** menu, select **Programs** and then **SMI Workbench** • Double-click on **Add System** • Enter the computer name or IP address of the server in the **Specify the computer name or IP address** dialog box • Click the **Verify Address** button to confirm that the address or computer name is correct • Click **Next** • Enter any comments about the system in the Comments dialog box • Click the **Finish** button; the SMI System icon is added to the SMI Workbench folder	
3.	Add a shortcut to the Symposium Express Call Center client application on the server desktop: • In the SMI Workbench, right-click on the **SECC System** icon and click **Create Shortcut** on the drop-down menu. A shortcut icon to the SECC system is created in the SMI Workbench. • Drag the shortcut to your desktop and release the mouse button. The new shortcut will appear as an icon on the desktop.	
4.	Add a shortcut to the Symposium Express Call Center client application on the stand-alone client desktop: • In the SMI Workbench, right-click on the **SECC System** icon and click **Create Shortcut** on the drop-down menu. A shortcut icon to the SECC system is created in the SMI Workbench. • Drag the shortcut to your desktop and release the mouse button. The new shortcut will appear as an icon on the desktop.	

Step	Log on to the Symposium Express Call Center and verify functions	√
1.	Log on from the co-resident client: • Double-click on the **System** icon for the server that you need to connect with. The Nortel Networks SMI Logon window opens. • For the user ID, type **sysadmin** (this is the default user ID). • For the password, type **nortel** (this is the default password). • Click **OK** to enter the user ID and Password. If this is the first time that the system administrator has logged on, the End User License Agreement window will open. • Click **Accept** to accept the license agreement. If this is the first time that the system administrator has logged on, the password must be changed from the default settings. • The Change Password dialog box opens. • For Old Password, enter the default password. • For New Password, enter a new password for the system administrator. • To confirm the new password, reenter the new password in the Confirm New Password box. • Click **OK**. The Symposium Express Call Center Administration window opens.	
2.	Log on from the stand-alone client PC: • Double-click on the **System** icon for the server that you need to connect with. The Nortel Networks SMI Logon window opens. • For the user ID, type **sysadmin** (this is the default user ID). • For the password, type **nortel1** (this is the new password). • Click **OK** to enter the user ID and Password. The Symposium Express Call Center Administration window opens.	
3.	Verify functions on the Symposium Express Call Center client interface: • Run tutorials and view online documentation • View online Help • Change password • View and print the Call Center Configuration report • Enter and Exit the Emergency Mode	

Step	Change the Windows passwords for the Symposium Express Call Center PVI server	V
1.	Ensure that you are logged in to Windows as NGenSys.	
2.	From the **Start** menu, select **Programs**, **Administrative Tools**, and then **Computer Management**. The Computer Management window opens.	
3.	On the Computer Management window, click the "+" sign next to Local Users and Groups under System Tools to expand the tree and click to open the **Users** folder.	
4.	Right-click on the user name **NGenDist** and click on **Set Password** on the drop-down menu. The Set Password dialog box opens.	
5.	In the **New Password** data box, type the new password.	
6.	In the **Confirm Password** data box, type the new password again.	
7.	Click **OK** to close the Set Password dialog box and set the new password.	
8.	Repeat these steps for the NGenDesign password.	
	Click on **Exit** to close the Computer Management window.	

Step	Log off of the Symposium Express Call Center client interface	V
1.	Log off from the co-resident client: • Click the **Close** button at the bottom of the Symposium Express Call Center Administration window. • On the Administration message that opens, click **Yes** to confirm your intent to log off.	
2.	Log off from the stand-alone client PC: • Click the **Close** button at the bottom of the Symposium Express Call Center Administration window. • On the Administration message that opens, click **Yes** to confirm your intent to log off.	

Summary

In this lesson you learned how to perform the tasks required to complete the installation of the Symposium Express Call Center software. You have also learned how to use the Symposium Express Call Center client interface. Now you are ready to begin importing switch and VS card data into your server to complete the setup of your call center.

Call Center Configuration

Introduction

To configure your Symposium Express Call Center for operation, you must define call center resources in the server database. These resources include the CDNs, IVR ACD-DNs, Routes, Voice ports, and Phonesets provisioned on your switch for the call center. This lesson will teach you how to use the Symposium Express Call Center configuration utilities to set up your call center.

Objective

At the conclusion of this lesson, given your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*, you will be able to perform the following tasks:

- Collect data from the switch with the Data Parser utility for use with the Symposium Express Call Center
- Import switch data to the Symposium Express Call Center using the Import utility
- Configure CDNs, Phonesets, Activity Codes and DNISs for your Symposium Express Call Center

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Using the Configuration Utilities"		

The Data Parser Utility

You will use the Data Parser to determine switch settings. The Data Parser uses the following three overlay programs to download and save the switch data information to a Comma Separated Value CSV file:

- Overlay 81: Lists features such as all the TNs on the system that are configured as Agents, Supervisors and Voice ports (voice mail agents)
- Overlay 23: Includes the CDNs and IVR ACD DNs
- Overlay 21: Includes the Routes

Connecting to the Switch

If your Symposium Express Call Center server PC is located close enough to your switch to reach with an RS 232 cable, you can use HyperTerminal to capture the data from the switch. Connect to the switch using an RS232 cable from an available COM port on the server PC to Port 0 on the switch. On an Option 11C switch, Port 0 is DTE, so you will need a null modem adapter for this connection.

If the server PC is not close enough to the switch, use any available PC with terminal emulation software that can perform text captures and save the data to a text file. This file is known as the Data Parser file.

Table 1: Terminal and Connection Setup Values

Terminal and Connection Setup	Value
Baud rate	9600 Kbits
Terminal type	VT100
Parity	8: 6 bits None: no parity
Stop bits	1
Flow control	None
Serial port	COM1 or COM2

Notes



Configuring Switch Resources

Switch resources such as CDNs, IVR ACD-DNs, voice ports, phonesets, and routes must be acquired from the switch so that the switch sends Symposium Express Call Center information about their status. In addition to adding these resources to the database, they must be acquired by the Symposium Express Call Center.

There are two ways you can configure and acquire switch resources:

- You can use the Import Utility provided with Symposium Express Call Center in the main application window.
- Manually configure and acquire switch resources as in Nortel Networks Symposium Call Center Server. (Refer to Symposium Call Center Server documentation for detailed instructions)

With Symposium Express Call Center, the Data Parser utility downloads configuration data from the switch. This data is then imported into the Symposium Express Call Center server database with the Import utility. The Symposium Express Call Center automatically acquires these resources after they are imported. With these utilities the administrator does not need to manually configure and acquire switch resources. This greatly reduces the overall configuration time for Symposium Express Call Center.

Configuring the Switch

In a previous lesson you learned how to configure switch to connect to and work with a Symposium Express Call Center and set up voice ports for your IVR system.

Switch resources are configured in the in the following overlays:

- Terminal Numbers LD 11
- Voice ports LD 11
- CDNs LD 23
- IVR ACD DN LD 23
- Routes LD 16

Notes



Caution: *A dumb terminal cannot be used to capture the switch data because the data download has to be saved to a floppy disk or to the hard drive on the Symposium Express Call Center server PC.*

Caution: *The switch can be set to send out intermittent maintenance messages. If any of these messages are transmitted during the data capture process, the import fails. To prevent interference from these messages, disable maintenance messages before you begin downloading resource data from the switch.*

Disable Maintenance Messages

Follow the steps below to disable maintenance messages on your switch:

- Launch the terminal emulation software and log on to the switch.
- Load Overlay 22 and respond to the prompts as shown in the following table. If a prompt appears that is not in the table, press **Enter** to accept the default value.

LD 22

Prompt	Response	Comment
REQ	prt	
TYPE	adan tty x	where x is the tty number from logon

A list of parameters appears. Make a note of all maintenance messages on the User parameter line. You must re-enable the maintenance messages after printing the switch resources to a file.

- Type **** to exit from the overlay.

Notes



- Load Overlay 17 and respond to the prompts as shown in the following table. If a prompt appears that is not in the table, press **Enter** to accept the default value.

LD 17

Prompt	Response	Comment
REQ	chg	
TYPE	adan	
ADAN	chg tty x	where x is the tty number from logon
USER	type an x in front of all messages	Example: xmtc xtrf xbug

Note: Always leave at least one message enabled. Nortel Networks suggests that you leave the sch message enabled, as it will not affect the parsing process.

- Type **** to exit from the overlay, and then press **Enter**.

Log off the switch so that your changes take effect.

Collecting the Switch Data in a Text File

Once your PC and switch connections are ready, start the text capture. Print to the screen the overlays listed in the table below. The text file can be saved under any user-defined name as long as it has a .txt file extension.

Phonesets

Print the phonesets to be acquired by Symposium Express Call Center.

LD 81

Prompt	Response	Comment
REQ	lst	List the phonesets
CUST	nn	Customer number
DATE	↵	Current date
PAGE	↵	
DES	↵	
FEAT	agn	Agents
FEAT	spv	Supervisors
FEAT	↵	

Voice Ports

Print the voice ports (and not RANs) for IVR messages.

LD 81

Prompt	Response	Comment
REQ	lst	
CUST	nn	Customer number
DATE	↵	Current date
PAGE	↵	
DES	↵	
FEAT	vma	Voice Messaging
FEAT	↵	

Note: This overlay program only recognizes voice ports configured as TNs on the switch. These may be required for either Meridian Mail or Meridian Mail ACCESS. When you use the Import Utility, you can exclude those voice ports that are not used by the Symposium Express Call Center.

CDNs

Print the CDNs to be acquired by Symposium Express Call Center.

Print the voice ports (and not RANs) for IVR messages.

LD 23

Prompt	Response	Comment
REQ	prt	
TYPE	cdn	
CUST	nn	Customer number
CDN	↵	

Notes



IVR ACD-DNs

Print the ACD DNs for IVR ACD-DNs.

LD 23

Prompt	Response	Comment
REQ	prt	
TYPE	acd	
CUST	nn	Customer number
ACD	↵	

Routes

Print the routes for reporting purposes.

LD 21

Prompt	Response	Comment
REQ	prt	
TYPE	rdb	
CUST	nn	Customer number
ROUT		Rout number
ACOD	↵	

Notes



Re-enable Maintenance Messages

Follow the steps below to re-enable maintenance messages on your switch:

- Load Overlay 17 and respond to the prompts as shown in the following table. If a prompt appears that is not in the table, press **Enter** to accept the default value.

LD 17

Prompt	Response	Comment
REQ	chg	
TYPE	adan	
ADAN	chg tty x	where x is the tty number from logon
USER	Remove x from messages	Example: USER mtc xtrf bug

- Type **** to exit from the overlay.
- Load Overlay 22 and respond to the prompts as shown in the following table. If a prompt appears that is not in the table, press **Enter** to accept the default value.

LD 22

Prompt	Response	Comment
REQ	prt	
TYPE	adan tty x	where x is the tty number from logon

A list of parameters appears. Verify that the USER parameter appears with the correct messages listed. If not, rerun Overlay 17 and fix the messages. When you are satisfied that the correct messages are listed, log off the switch.

Notes





Practice

Call Center Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

1. When using the Data Parser utility to download switch data to a text file that you will import to the Symposium Express Call Center, which of the following overlay programs is used to download data about the TNs on the switch that are configured as Agents, Supervisors and Voice ports?

- a. LD 11
- b. LD 21
- c. LD 23
- d. LD 81

Select Answer

2. Why would you disable maintenance messages on you switch before you use the Data Parser utility to download switch data to a floppy disk or to the hard drive on the Symposium Express Call Center server PC?

- a. You cannot enter the switch overlay programs unless the maintenance messages are disabled
- b. If a maintenance message is transmitted during the data capture process the data import will fail
- c. The Data Parser utility will not allow you to download any switch data unless the maintenance messages are disabled
- d. The call processor on the switch will fail if you attempt to download switch data with the maintenance messages enabled

reset

The Import Utility

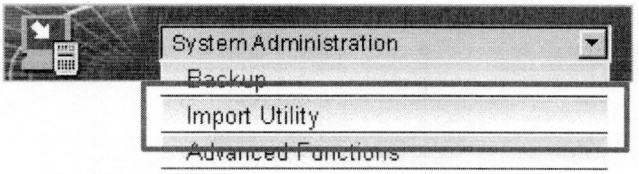
Symposium Express Call Center provides an Import utility to import the switch resource data from the Data Parser file and update the data to the server databases. The Import utility allows you to gather information about the status of switch resources to send to the Symposium Express Call Center server.

Importing the Data into the Symposium Express Call Center

The Import utility is only accessible to the System Administrator. From the Symposium Express Call Center client window, click to open the **System Administration** menu and then click on **Import Utility**.

Tip: *You must be logged in as the System Administrator to access the Import Utility.*

Figure 1: Activating the Import Utility from the System Administration Menu



An **Open** dialog box is displayed. Browse to select the Data Parser text file where you saved the data that was downloaded from the switch.

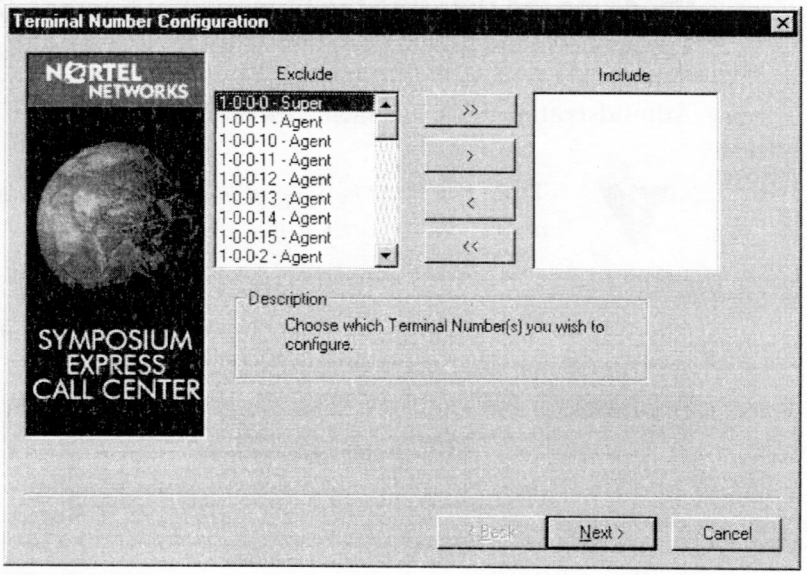
Tip: *The Import feature looks for CDNs in the text file. If none are found, the import will abort.*

Notes

TNs

The Import utility will first list the TNs configured on the switch. Follow the prompts to select the TNs that you want to include for Symposium Express Call Center use. If you do not wish to configure any TNs, do not make any changes and press the **Next** button. You can click **Back** at any time to update choices made on previous windows.

Figure 2: Terminal Number Configuration



Click **Next** to continue the Import utility.

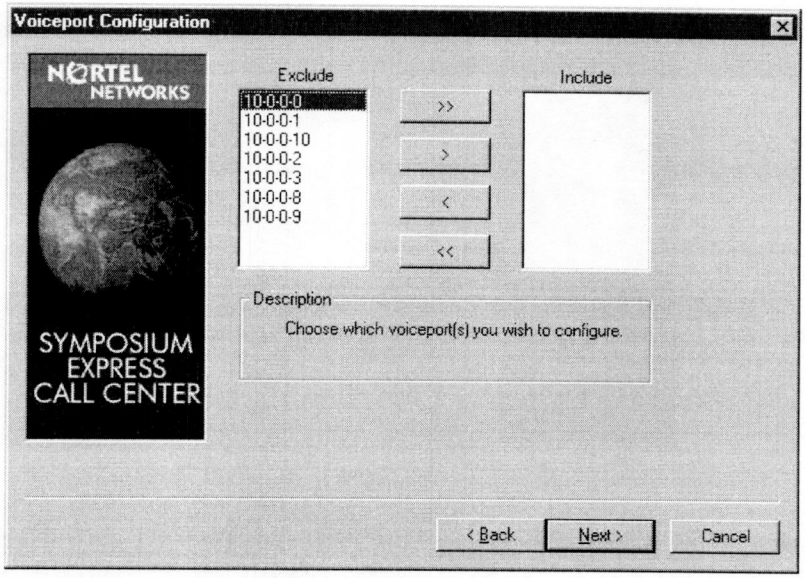
Notes



Voice Ports

Follow the prompts to select the Voice Ports that you want to include for Symposium Express Call Center use. If you do not wish to configure any Voice Ports, do not make any changes and press the **Next** button. You can click **Back** at any time to update choices made on previous windows.

Figure 3: Voice Port Configuration



Click **Next** to continue the Import utility.

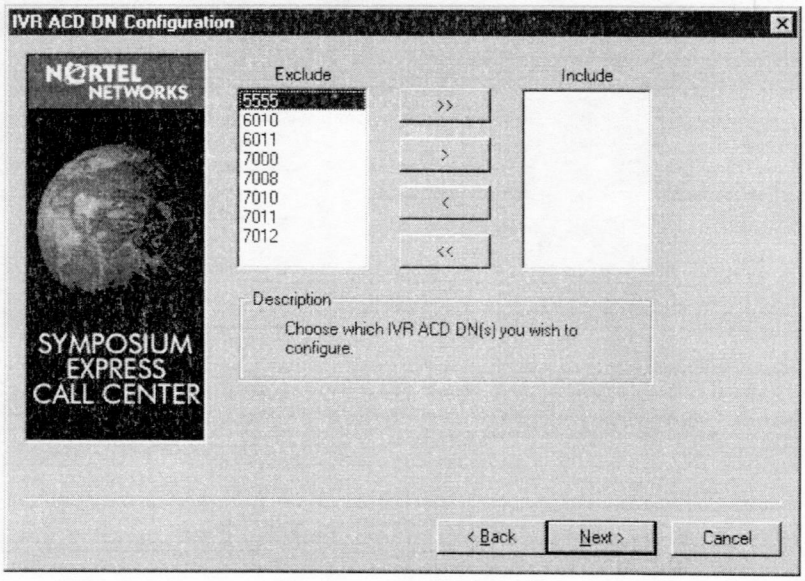
Notes



IVR ACD-DNs

Follow the prompts to select the IVR ACD-DNs that you want to include for Symposium Express Call Center use. If you do not wish to configure any IVR ACD-DNs, do not make any changes and press the **Next** button. You can click **Back** at any time to update choices made on previous windows.

Figure 4: IVR ACD-DN Configuration



Click **Next** to continue the Import utility.

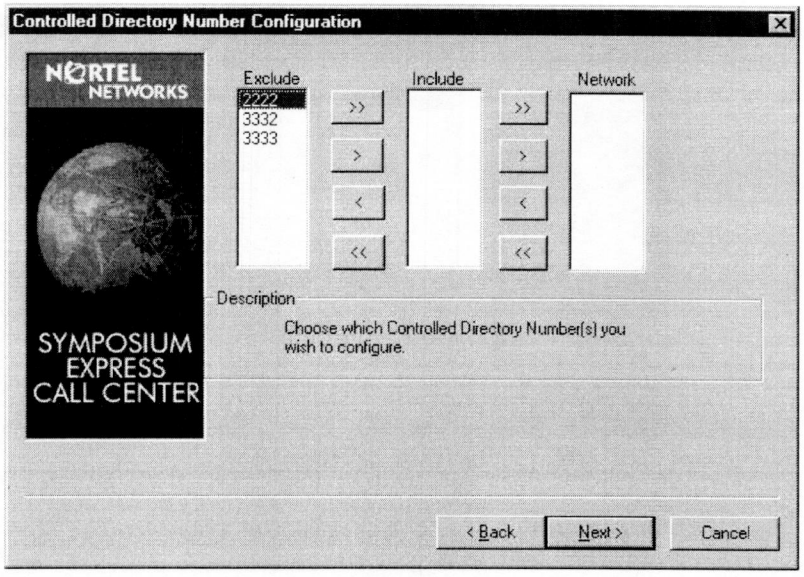
Notes



CDNs

Follow the prompts to select the CDNs that you want to include for Symposium Express Call Center use. If you do not wish to configure any CDNs, do not make any changes and press the **Next** button. You can click **Back** at any time to update choices made on previous windows.

Figure 5: CDN Configuration



Click **Next** to continue the Import utility.

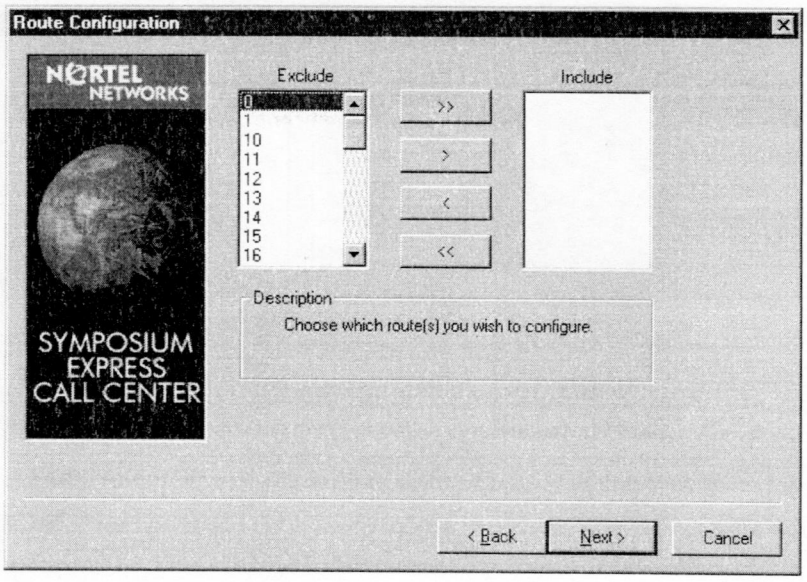
Notes



Routes

Follow the prompts to select the Routes that you want to include for Symposium Express Call Center use. If you do not wish to configure any Routes, do not make any changes and press the **Next** button. You can click **Back** at any time to update choices made on previous windows.

Figure 6: Route Configuration



Click **Next** to continue the Import utility.

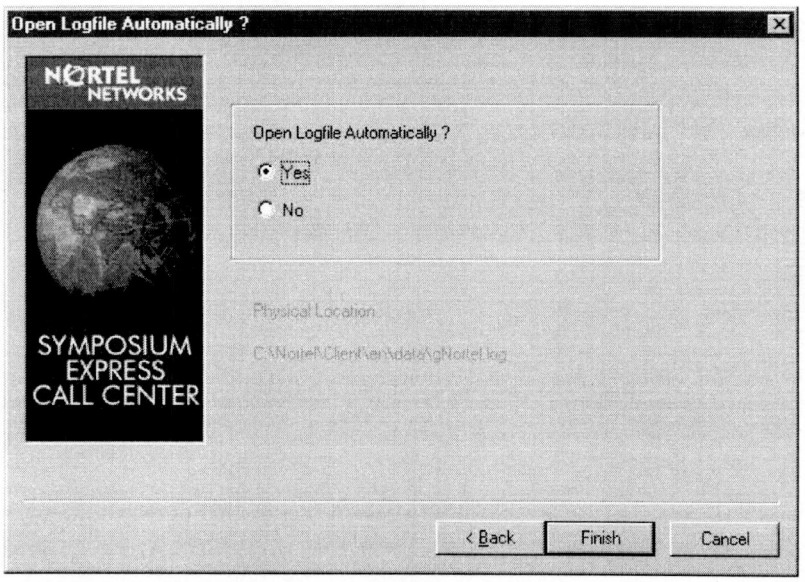
Notes



Finishing the Import Utility

After you have selected the switch resources to import, the Open Logfile Automatically? window appears. You are asked if you wish to open the Logfile automatically on completion of the utility. Select **Yes**, and click **Finish**.

Figure 7: Open Log file Automatically?



When you click **Finish**, the resources that you have selected are written to the Symposium Express Call Center database. At this stage, the application performs a check to ensure that the switch resources you selected do not exceed the maximum number of resources allowed on Symposium Express Call Center. A progress bar displays while the data uploads to the Symposium Express Call Center database. The results of all operations are written to a report file that you can open and review. You can find the file in C:\Nortel\Client\en\data\gNortel.log.

Tip: *This log file is initialized each time that the Import utility is launched for call center data import or for switch resources import.*

Notes

Deleting Switch Resource Data

The Import utility is also used to delete switch resource data from the Symposium Express Call Center database. Deleting switch resources from the Symposium Express Call Center database does not modify the Data Parser text file or remove any resources from the switch. You must update switch resource information on the Symposium Express Call Center any time that you change your switch configuration.

Notes





Practice

Call Center Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

3. What switch information does the Import Wizard import to the Symposium Express Call Center?

   a. TNs, Meridian Mail Voice Ports, CDNs, IVR ACD-DNs, and Routes

   b. Switch Name, Customer Number, IP Address, and CDNs

   c. CDNs, Phonesets, Activity Codes, and DNISs

   d. None of the answers above are correct

Select Answer

4. When you use the Import Utility to delete switch resource data from the Symposium Express Call Center database, the data is automatically deleted from the Data Parser text file and the switch database.

   a. True

   b. False

reset

Adding and Acquiring Resources on the Server

Before your call center can be operational, you must configure resources from the switch on the Symposium Express Call Center server. This section will cover the configuration of CDNs, Phonesets, Activity Codes, and DNISs

When the call center is started up or whenever switch resources are changed, the server must acquire the resources. When the server acquires a resource, the switch sends all messages regarding the resource to the server. The table below shows acquisition states for switch resources as viewed by the server.

Table 3: The Acquisition States for Switch Resources

If the Current State is	Then
Not Acquired	The resource has just been created or de-acquired.
Acquired - Pending	There is a request in to the system to acquire the resource.
Acquired	The resource is acquired from the switch.
Acquired Login (Voice Port)	The voice port has been acquired, and is in login state.
Acquired Logout (Voice Port)	The voice port has been acquired, and is in logout state.
Acquired - Failed	A problem occurred during an attempt to acquire the resource. The server is unable to acquire it.
De-acquired – Pending	There is a request in to the system to de-acquire the resource.
De-acquired - Failed	There is a problem de-acquiring the resource from the switch and the server is unable to de-acquire it.

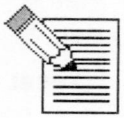


Tip: *A change in the status of an acquisition is not automatically reflected in the resource window. To view the most current status, click to select* ***Refresh*** *on the* ***View*** *menu.*



Caution: *Information that is configured at the switch must match the configuration on the Symposium Express Call Center to ensure that the switch and the system can communicate and function properly.*

Notes



CDNs

You have previously created CDNs on the switch and imported them into the Symposium Express Call Center database. These CDNs queue incoming calls on the switch and allow messages regarding these calls to be sent to the server. You must ensure that these CDNs are added and acquired by the server. After CDNs are acquired, the server can track when the calls are terminated on a CDN.

Adding CDNs

Follow the steps below to add CDNs on the Symposium Express Call Center server:

- Log on to the server as the System Administrator or Customer Administrator.
- From the Symposium Express Call Center client window, open the **Switch Administration** menu and click on **CDNs**. The CDNs window will open.

Figure 8: Opening the CDNs Window from the Switch Administration Menu

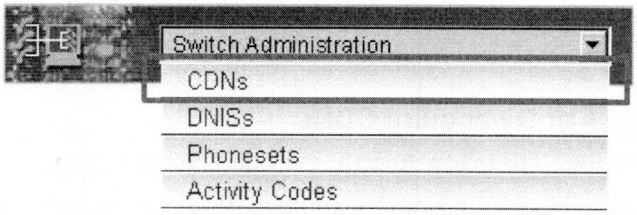
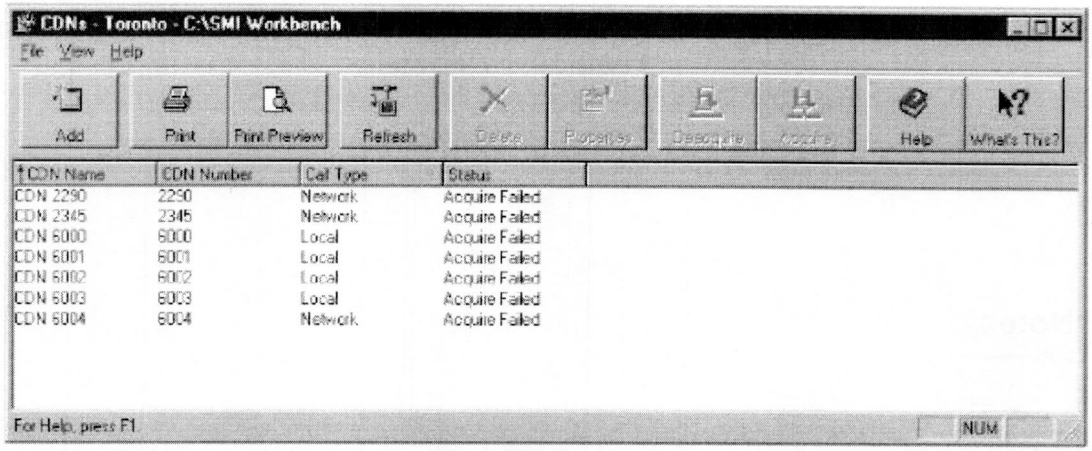
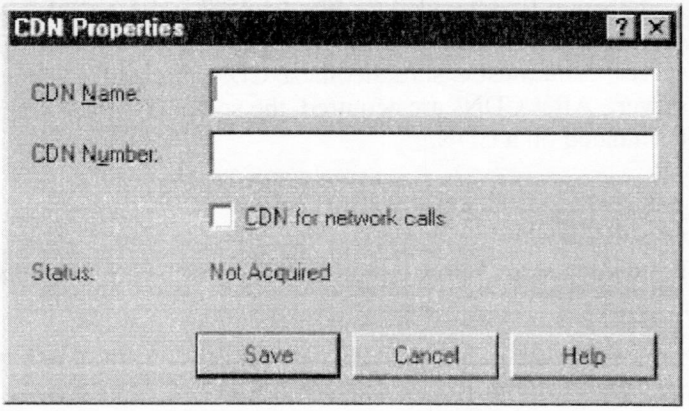


Figure 9: The CDNs Window



- From the **File** menu, click to select **New**. The CDN Properties sheet opens.

Figure 10: The CDN Properties Sheet



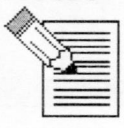
- Enter the **CDN Name** and **CDN Number** in the dialog boxes provided.
- Check to select **CDN for network calls** if you want this CDN to be used for network calls.
- Click **Save**. The new CDN is added to the list in the CDNs window with the status of Not Acquired.

Acquire or De-acquire CDNs

Follow the steps below to acquire or de-acquire CDNs:

- From the Administration window, double-click on the **CDNs** icon. The CDNs window will open.
- Click to select the **CDN** that you want to acquire or de-acquire.
- To acquire a CDN, click on **File** and then **Acquire**. To de-acquire a CDN, click on **File** and then **De-acquire**. The status will change to Acquire – (or De-acquire) Pending.
- To refresh the CDN status, click on **View** and then **Refresh**.

Notes



Phonesets

Each phoneset that agents and supervisors will use must be added and acquired. When the phoneset is acquired, the switch begins sending information about the phoneset to the server.

Agents can log on to any phoneset in the call center. When an agent logs on, the server is sent the position ID from the switch. The server then automatically maps the position ID for that agent to the appropriate agent key on the supervisor's phoneset.

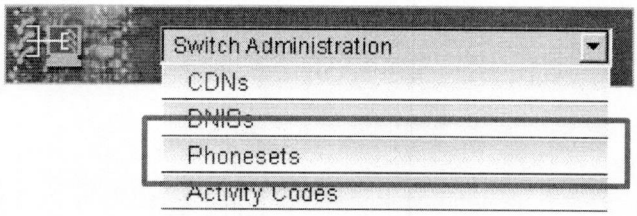
Supervisors are associated with a single phoneset specified in the position ID field on the User Property Sheet. The position ID allows you to program agent keys for the supervisor's phoneset on the switch. The supervisors will use the agent keys to communicate with their assigned agents.

Adding Phonesets

Follow the steps below to add Phonesets on the Symposium Express Call Center server:

- Log on to the server as the System Administrator or Customer Administrator.
- From the Symposium Express Call Center client window, open the **Switch Administration** menu and click on **Phonesets**. The Phonesets window will open.

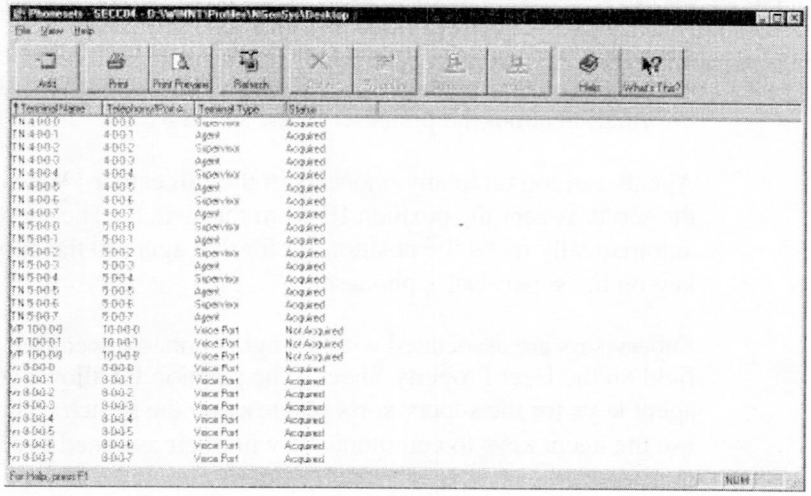
Figure 11: Opening the Phonesets Window from Switch Administration



Notes

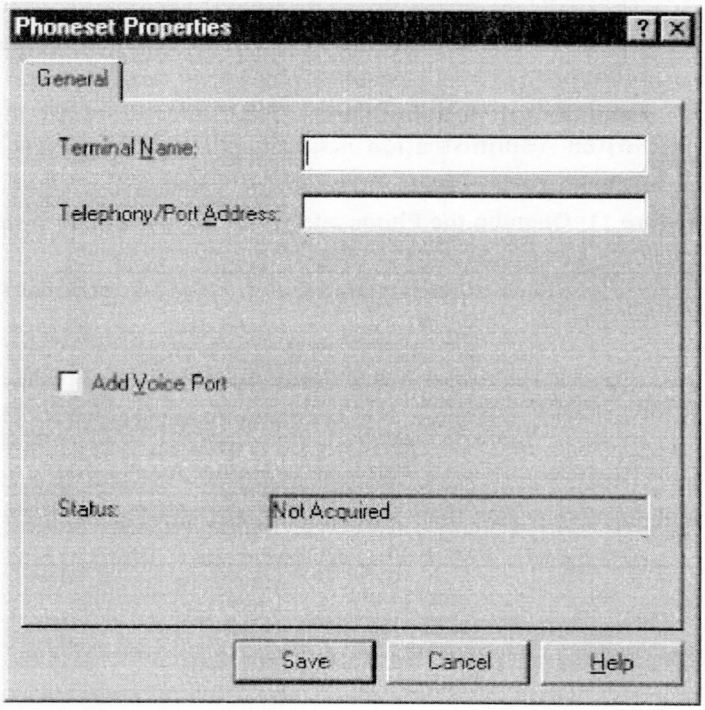


Figure 12: The Phonesets Window



- Click on **File** and then **New**. The Phoneset Properties sheet opens.

Figure 13: The Phoneset Properties Sheet



- Enter the name of the Phoneset, as it will appear on reports in the **Terminal Name** dialog box.
- Enter the terminal number (TN) of the set on the switch in the **Telephony/Port Address** dialog box in l-s-c-u format. Ensure that the **Add Voice Port** check box is unchecked.
- Click **Save**. The phoneset is added to the list in the Phonesets window with the status set to Not Acquired.
- Click **Close** to return to the Phonesets window.

Acquire or De-acquire Phonesets

Follow the steps below to acquire or de-acquire Phonesets:

- From the Administration window, double-click on the **Phonesets** icon. The Phonesets window will open.
- Click to select the Phonesets that you want to acquire or de-acquire.
- To acquire a Phoneset, click on **File** and then **Acquire**. To de-acquire a Phoneset, click on **File** and then **De-acquire**. The status will change to Acquire – (or De-acquire) Pending.
- To refresh the Phoneset status, click on **View** and then **Refresh**.

Notes



Activity Codes

Activity codes are provided in the Symposium Express Call Center as a way that managers can track the time that agents spend on various activities during the workday. The agents enter activity code numbers on their phoneset during a call to identify the type of service that they are providing. Supervisors can then generate reports based on these activity codes and monitor the time spent on different activities.

Default Activity Codes

Symposium Express Call Center provides two default activity codes:

- 0 = System default – Assigned automatically when an agent does not press the activity code key during a call.
- 00 = Skillset default – Assigned automatically when an agent presses the activity code key twice during a call.

Not Ready Reason Codes

Symposium Express Call Center provides agents the ability to enter an activity code that identifies a specific reason for going into the Not Ready state. The agent enters a Not Ready Reason code on their phoneset prior to entering the Not Ready state. Supervisors can track the amount of time that agents spend on various activities while the agent is in the Not Ready state.

Adding Activity Codes

Follow the steps below to add Activity Codes on the Symposium Express Call Center server:

- Log on to the server as the System Administrator or Customer Administrator.
- From the Symposium Express Call Center client window, open the **Switch Administration** menu and click on **Activity Codes**. The Activity Codes window will open.

Figure 14: Opening the Activity Codes Window from Switch Administration

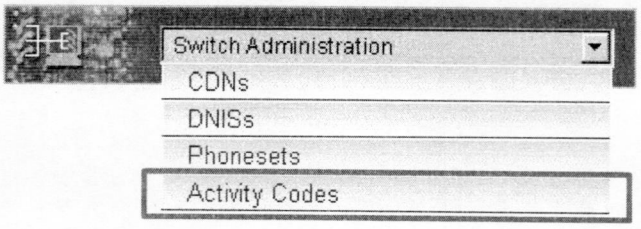
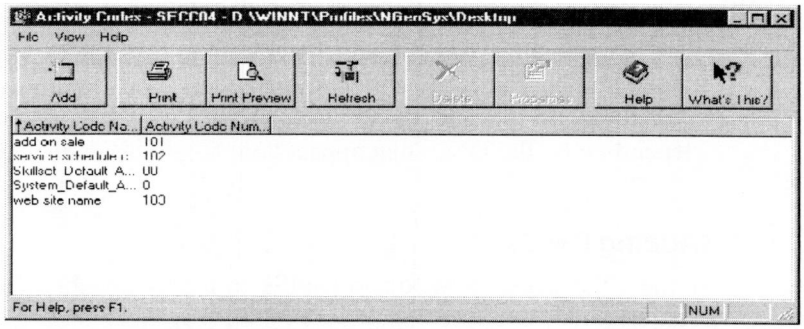
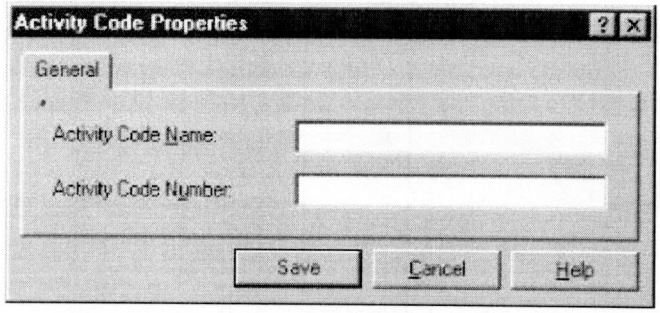


Figure 15: The Activity Codes Window



- Click on **File** and then **New**. The Activity Code Properties sheet opens.

Figure 16: The Activity Codes Properties Sheet



- Enter the name of the Activity Code in the **Activity Code Name** data box.
- Enter the number for the Activity Code in the **Activity Code Number** data box.
- Click the **Save** button to save the entry. The new Activity Code will appear in the Activity Codes window.
- Repeat steps to add additional Activity Codes
- Click the **Refresh** button on the Activity Codes window toolbar to update the display.

Notes



DNIS

The Symposium Express Call Center system uses DNIS to recognize the phone number dialed by an incoming caller. The system routes calls from a specific DNIS to a specific skillset. Agents then customize their response depending on the DNIS that appears on the phoneset display.

Adding DNISs

Follow the steps below to add DNISs on the Symposium Express Call Center server:

- Log on to the server as the System Administrator or Customer Administrator.
- From the Symposium Express Call Center client window, open the **Switch Administration** menu and click on **DNIS**s. The DNISs window will open.

Figure 17: Opening the Activity Codes Window from Switch Administration

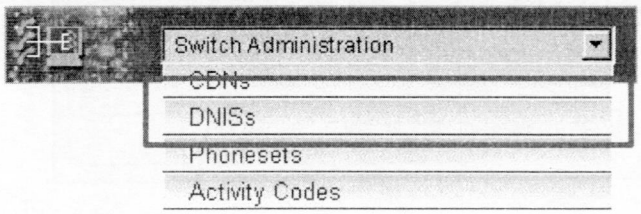
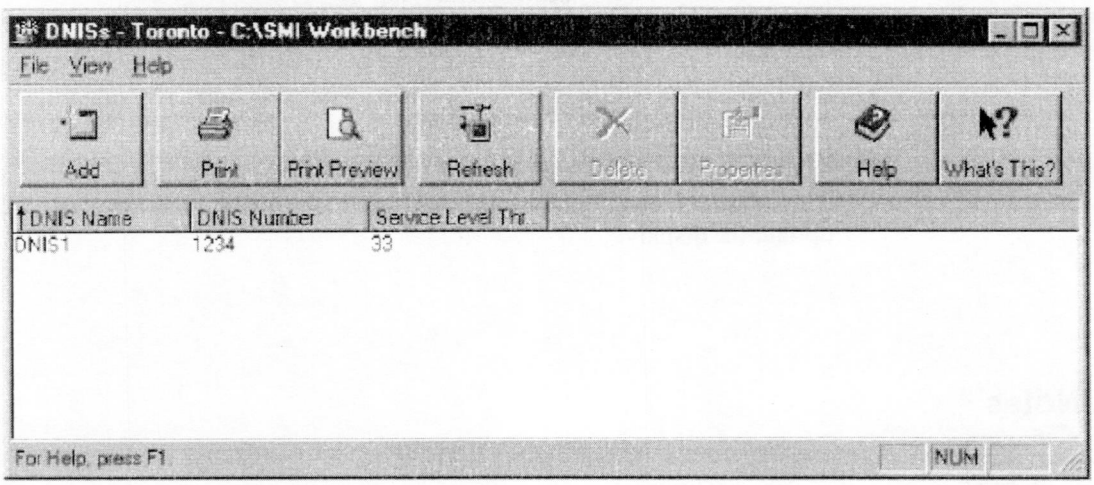
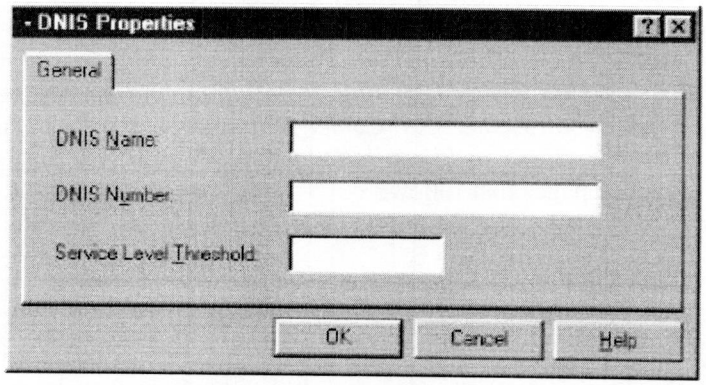


Figure 18: The DNISs Window



- From the **File** menu, click to select **New**. The DNIS Properties sheet opens.

Figure 19: The DNIS Properties Sheet



- Enter the name of the DNIS, as it will appear on reports in the **DNIS Name** dialog box.
- Enter the DNIS number as it is configured on the switch in the **DNIS Number** dialog box.
- Specify the time in seconds within which all calls coming through on this DNIS should be answered or abandoned in the **Service Level Threshold** dialog box. (This value is used in real-time displays.)
- Click **Save**. The new DNIS is added to the list in the DNISs window.

Notes





Practice

Call Center Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

5. What is the definition given for the term Acquired – Pending?

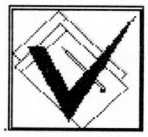
- a. The resource has just been created or de-acquired
- b. There is a request in to the system to acquire the resource
- c. The resource is acquired from the switch
- d. There is a request in to the system to de-acquire the resource

Select Answer

6. What type of Activity Code will an agent enter on their phoneset prior to entering the Not Ready state to give the reason that they are going Not Ready?

- a. Default Activity Code
- b. System Activity Code
- c. Skillset Activity Code
- d. Not Ready Reason Code

reset



Answers to Practice

Symposium Express Call Center Configuration

Check your answers to the practice.

1. When using the Data Parser utility to download switch data to a text file that you will import to the Symposium Express Call Center, which of the following overlay programs is used to download data about the TNs on the switch that are configured as Agents, Supervisors and Voice ports?

   a. LD 11

   b. LD 21

   c. LD 23

   d. LD 81

2. Why would you disable maintenance messages on you switch before you use the Data Parser utility to download switch data to a floppy disk or to the hard drive on the Symposium Express Call Center server PC?

   a. You cannot enter the switch overlay programs unless the maintenance messages are disabled

   b. If a maintenance message is transmitted during the data capture process the data import will fail

   c. The Data Parser utility will not allow you to download any switch data unless the maintenance messages are disabled

   d. The call processor on the switch will fail if you attempt to download switch data with the maintenance messages enabled

3. What Meridian 1 switch information does the Import Wizard import to the Symposium Express Call Center?

   a. TNs, Meridian Mail Voice Ports, CDNs, IVR ACD-DNs, and Routes

   b. Switch Name, Customer Number, IP Address, and CDNs

   c. CDNs, Phonesets, Activity Codes, and DNISs

   d. None of the answers above are correct

4. When you use the Import Utility to delete switch resource data from the Symposium Express Call Center database, the data is automatically deleted from the Data Parser text file and the switch database.

   a. True

   b. False

5. What is the definition given for the term Acquired – Pending?

   a. The resource has just been created or de-acquired

   b. There is a request in to the system to acquire the resource

   c. The resource is acquired from the switch

   d. There is a request in to the system to de-acquire the resource

6. What type of Activity Code will an agent enter on their phoneset prior to entering the Not Ready state to give the reason that they are going Not Ready?

   a. Default Activity Code

   b. System Activity Code

   c. Skillset Activity Code

   d. Not Ready Reason Code



Skill Check

Symposium Express Call Center Configuration

Use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide* as reference materials to assist in performing the tasks below.

1. Import data from the switch to the Symposium Express Call Center.

   a. Connect to the switch

   b. Export switch data into a text file

   c. Use the Import wizard and import the TNs, Voice ports, CDNs, IVR AC-DNs, and Routes

2. Add and acquire CDNs, Phonesets, Activity Codes, and DNISs on the Symposium Express Call Center.



Skill Check Feedback

Symposium Express Call Center Configuration

You have successfully completed the Skill Check when the following tasks are completed:

- The switch data (TNs, Meridian Mail Voice Ports, CDNs, IVR ACD-DNs, and Routes) has been successfully imported to the Symposium Express Call Center.
- The switch resources (CDNs, Phonesets, Activity Codes, and DNISs) have been added and acquired.

Step	Call Center Configuration	V
1.	Import data from the switch to the Symposium Express Call Center a. Connect to the switch b. Export switch data into a text file - Disable Maintenance Messages - Extract Phoneset data - Extract Voice Port data - Extract CDN data - Extract IVR ACD-DN data - Extract Route data - Re-enable the Maintenance Messages c. Use the Import wizard and import the switch data to the Symposium Express CallCenter database - Import TNs - Import Voice Ports - Import CDNs - Import IVR AC-DNs - Import Routes	

Step	Call Center Configuration (continued)	V
2.	Add and acquire the switch resources on the Symposium Express Call Center a. CDNs - Add - Acquire b. Phonesets - Add - Acquire c. Activity Codes - Add - Acquire d. DNISs - Add - Acquire	

Summary

In this lesson you used the data parser to collect switch data, and imported the switch data to the Symposium Express Call Center using the Import wizard. You added and acquired switch resources that will be used with your call center. Each step has been explained and is available for your reference. Your call center is now ready for you to begin administrative tasks such as adding supervisors and agents, configuring call treatments, and setting up call routing. You will learn how to perform these administrative tasks in the next lessons.

Voice Services Card Configuration

Introduction

If a Voice Services (VS) card is used to play recorded announcements or provide menus for customers who call into the Symposium Express Call Center, all switch resources associated with VS card must be defined in the server database.

Objective

At the conclusion of this lesson, given your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*, you will be able to perform the following tasks:

- Enter the VS card keycode using the VS Configuration Utility
- Add the Voice Services voice ports to Symposium Express Call Center
- Save the VS card configuration information from the switch into a text file
- Run the VS Configuration Utility to import the information into Symposium Express Call Center

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Configuring a Voice Services card"		

Configuring VS Card Resources



Tip: *All features described in this section are optional, keycoded features. Voice Services, Play Prompt / Collect Digits, Position in Queue, and Expected Wait Time are only available if you have purchased these options and they are shown on your Symposium Express Call Center keycode.*

After you have installed the VS card in your switch and performed the initial configuration as described in the *Nortel Networks Voice Services Card Installation Guide*, you must perform the following tasks to configure the VS card on the Symposium Express Call Center server:

- Run the VS Configuration Utility and enter the VS card keycode
- Add and acquire the Voice Services voice ports in the Symposium Express Call Center.
- Save the VS card switch configuration information from the switch into a text file.
- Run the VS Configuration Utility to import the VS card switch configuration information into Symposium Express Call Center.

Assign the VS Card Keycode

Before you can perform any configuration tasks on the VS card, you must enter the VS card keycode. The VS card keycode identifies the ports and optional features that were purchased with the VS card hardware. The VS Configuration Utility is provided with Symposium Express Call Center to enter VS card data such as the card name, IP address, keycode, and default DN. This utility is also used to import VS card switch configuration information into the Symposium Express Call Center. You will run the utility whenever you add, make a change to, or remove a VS card.

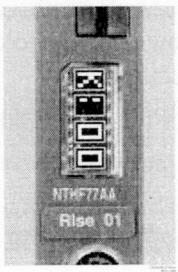
Notes



Verify that No Keycode is Assigned

You can verify that the VS card does not have a keycode assigned by observing the LED Hex display on the front panel of the VS card. After the card has booted, the status LED cycles through several codes that indicate the number of enabled phonesets, DSP channels, keycode, and channel capacity. When the VS card does not have a keycode assigned the keycode status will display **K:00**.

Figure 1: The LED Hex Display on the Front Panel of the VS Card



Prerequisite Conditions

Before you can run the VS Configuration Utility, ensure that the following conditions are met:

- The VS card is installed and configured on the switch.
- The Symposium Express Call Center server and client software is installed.
- You have previously run the Import Wizard to import your switch resource information into your call center.

Adding the Keycode

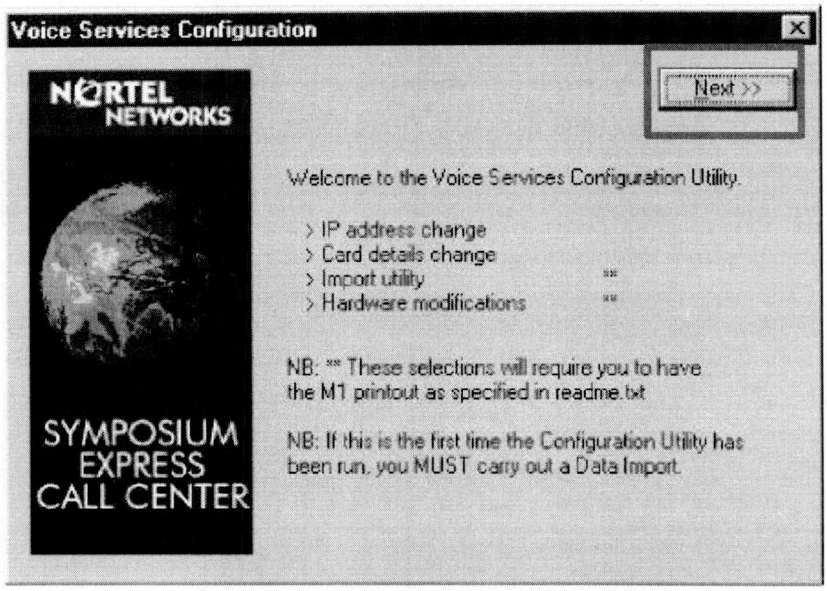
Follow the steps below to enter the VS card keycode:

- Log on to the server as NGenSys.
- From the **Start** menu, select **Programs**, **Symposium Express Call Center**, **Voice Services**, and then **Configuration**. The Voice Services Configuration wizard opens.

Notes

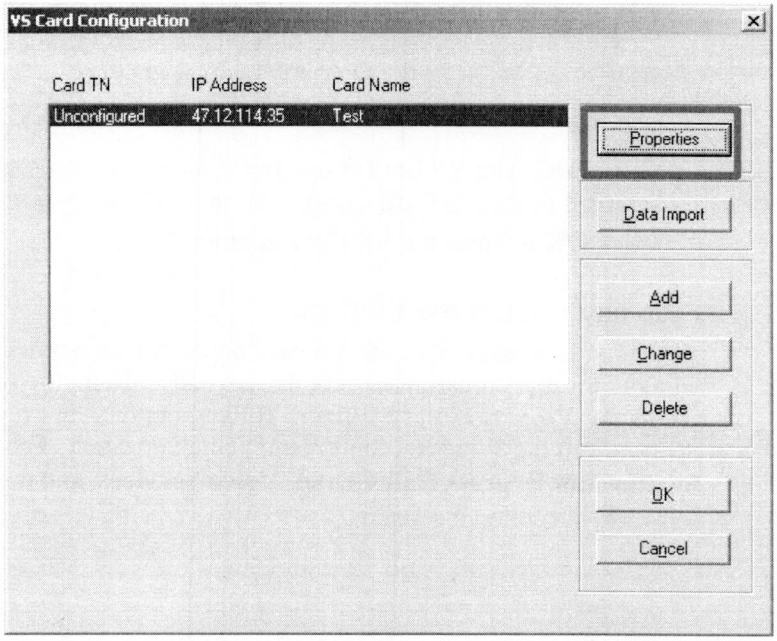


Figure 2: The Voice Services Configuration Wizard



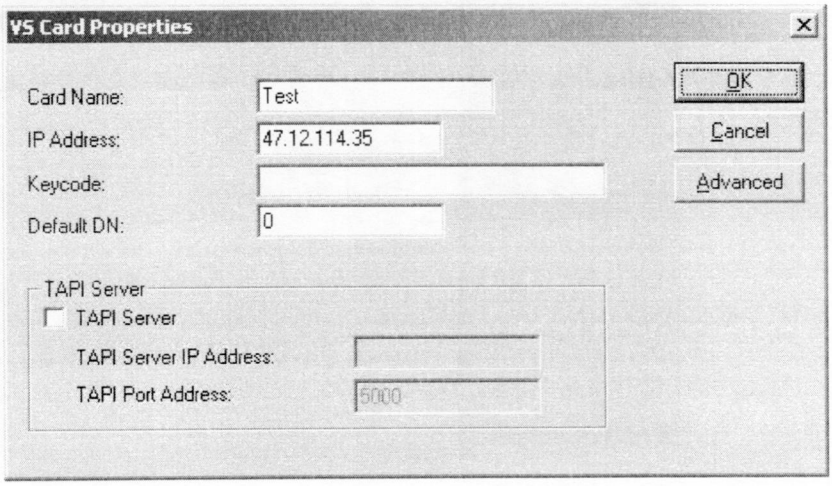
- Click **Next**. The VS Card Configuration window opens.

Figure 3: The VS Card Configuration Window



- On the VS Card Configuration window, click to select the **VS card** and then click **Properties**. The VS Card Properties dialog box opens. The Keycode data field will be blank.

Figure 4: The VS Card Properties Dialog Box



- Enter the **Keycode** and **Default DN** for your VS card as required.

Caution: *The VS card Keycode must be entered in three groups of eight digits with a space separating each group. For example,11111111 22222222 33333333..*

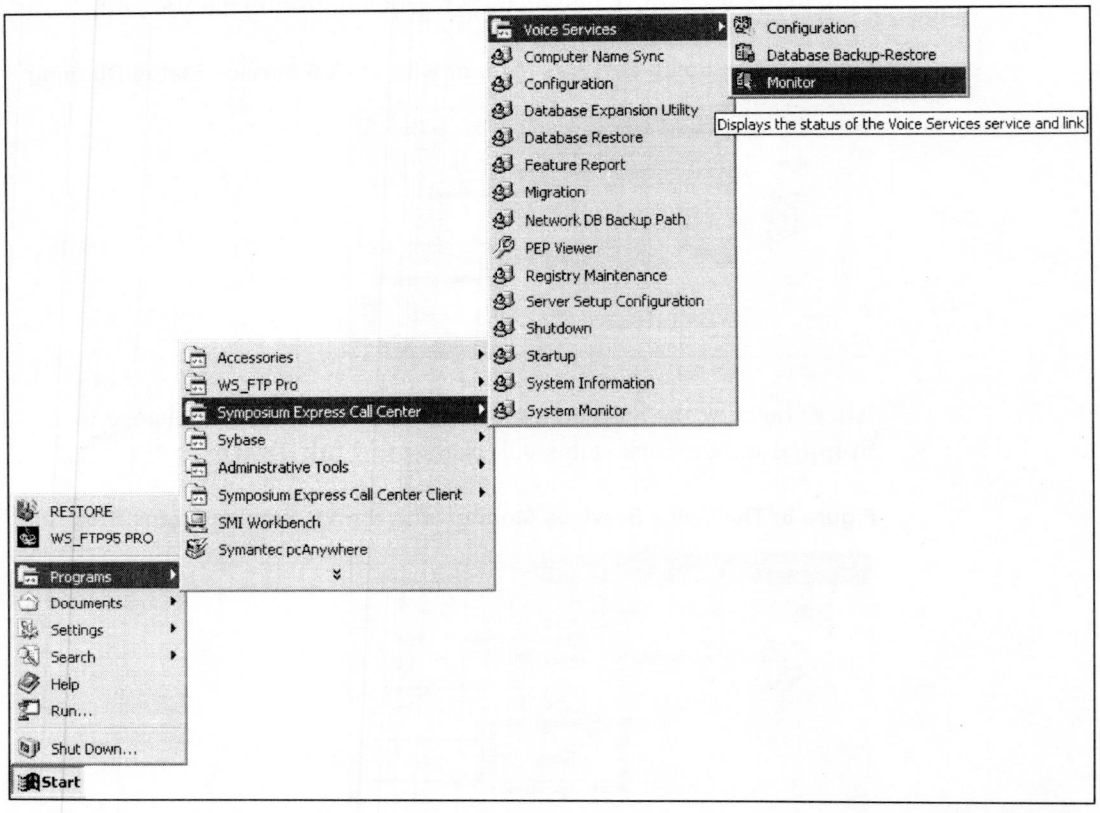
- Click **OK**. The VS Card Properties dialog box closes and you are returned to the VS Card Configuration window.
- Click **OK** to close the VS Configuration Utility.

Stop and Restart the VS Card

You must stop and restart the VS card on the Voice Services Monitor window for the VS card to accept the keycode. There are two methods to access the Voice Services Monitor. If the monitor is not running, you must open it from the Windows Start menu. Click on **Start**, **Programs**, **Symposium Express Call Center**, **Voice Services**, and then **Monitor** as shown in the following figure.

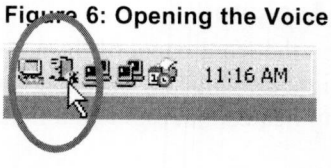
Notes

Figure 5: Opening the Voice Services Monitor From the Windows Start Menu

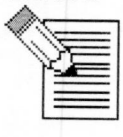


If the monitor is running minimized, an icon will be displayed on the Windows toolbar as shown if the following figure. Double-click on the **Voice Services Monitor icon** to open the VS Service Status window.

Figure 6: Opening the Voice Services Monitor From the Windows Toolbar

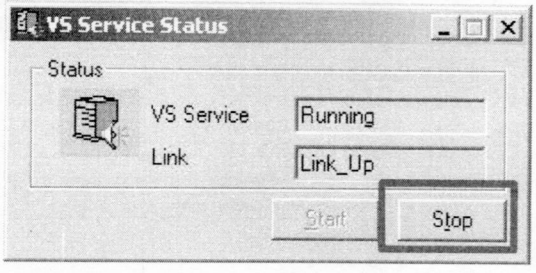


Notes



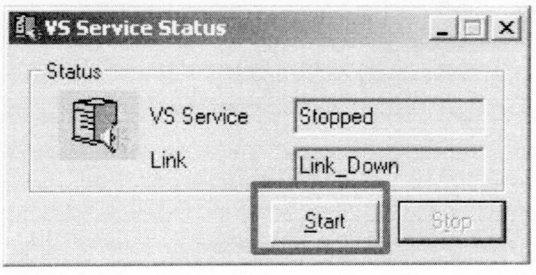
The VS Service Status window displays the status of the VS Service and the Link to the VS card. Click on the **Stop** button to stop the VS card.

Figure 7: The Voice Services Monitor with the VS Service Status Running



After you click the Stop button, the VS Service status will change to **Stopped** and the Link status will change to **Link_Down**.

Figure 8: The Voice Services Monitor with the VS Service Status Stopped

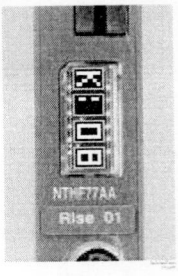


Click the **Start** button to restart the VS card. The VS Service status will change back to **Running** and the Link status will change back to **Link_Up**.

Verify that the Keycode is Assigned

Observe the LED Hex display on the front panel of the VS card to confirm that the VS card keycode is assigned. After the card has booted, the keycode status will display **K:08**. This indicates that eight channels are authorized by the keycode.

Figure 9: The LED Hex Display on the Front Panel of the VS Card





Practice

Voice Service Card Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

1. Before you add the VS card keycode in the VS Configuration Utility, what will the LED Hex display on the front panel of the VS card display for keycode?

- a. K:XX
- b. K:00
- c. K:08
- d. The LED Hex display will be blank

Select Answer

2. If the Voice Services Monitor is running minimized, how will you open the open the VS Service Status window to stop and restart the VS card?

- a. Double-click on the Voice Services Monitor icon on the Windows toolbar
- b. Click on Start, Programs, Symposium Express Call Center, Voice Services, and then Monitor
- c. Click on Start, Programs, Symposium Express Call Center Client, and then Voice Services Monitor
- d. Open the Symposium Express Call Center client application and select Voice Services Monitor from the System Administration drop-down menu

reset

Add and Acquire Voice Services Voice Ports

Each Voice Services voice port configured on the switch that is use to provide VS card functionality to Symposium Express Call Center must meet the following conditions:

- The Voice Services voice port must be configured on the switch
- The Voice Services voice port must be added in Symposium Express Call Center
- The Voice Services voice port must be acquired in Symposium Express Call Center

Note: Voice Services voice ports are not added automatically as voice ports by the Symposium Express Call Center import utility, as are other voice ports such as those used by Meridian Mail.



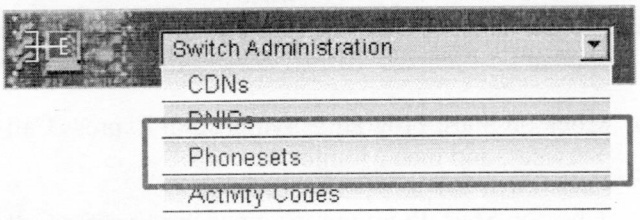
Tip: *When Voice Services card voice ports are added or changed, you may need to add or change the matching voice port configuration information in Symposium Express Call Center.*

Add VS Card Agent Sets as Voice Ports

Follow the steps below to add Voice Service Voice Ports on the Symposium Express Call Center server:

- Log on to the server as the System Administrator or Customer Administrator.
- From the Symposium Express Call Center client window, open the **Switch Administration** menu and click on **Phonesets**. The Phonesets window will open.

Figure 10: Opening the Phonesets Window from Switch Administration



Notes

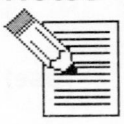
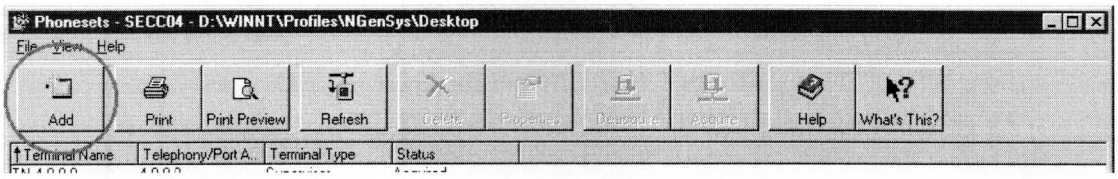
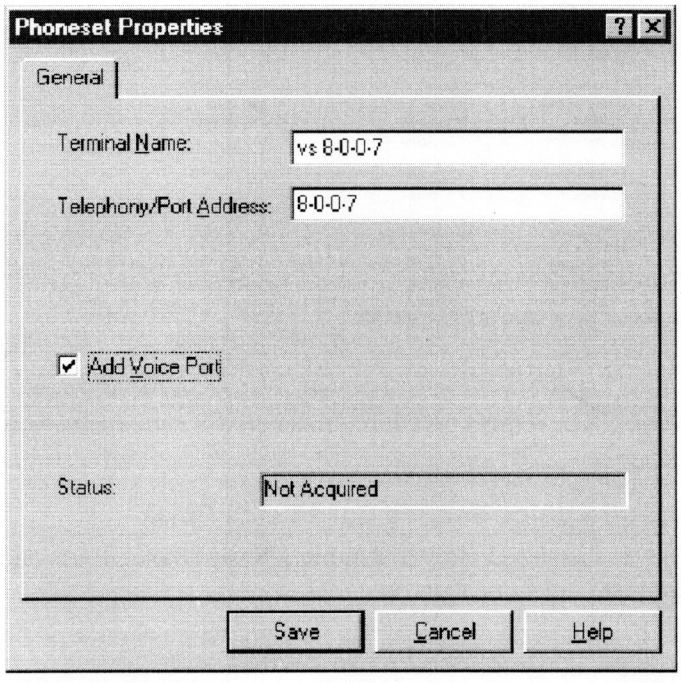


Figure 11: The Add Button on the Phonesets Window Toolbar



- Click on the **Add** button on the Phonesets window toolbar. The Phoneset Properties sheet opens.

Figure 12: The Phoneset Properties Sheet

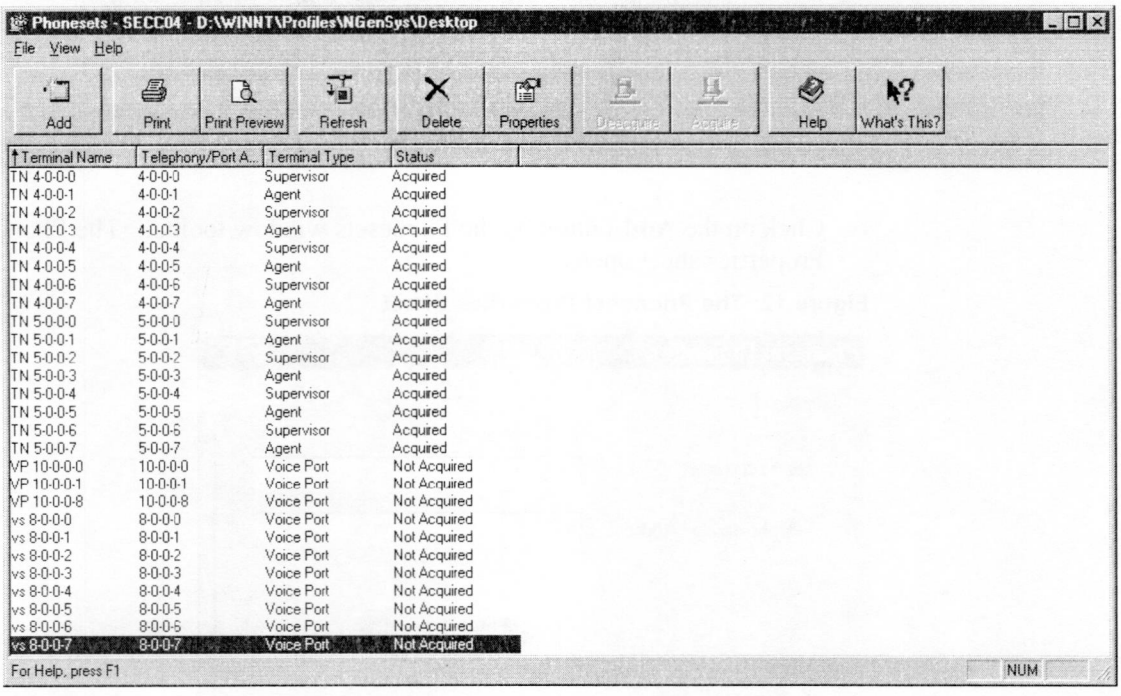


- Enter the **name of the VS card Agent Set**, as it will appear on reports in the Terminal Name dialog box.
- Enter the **Terminal Number (TN)** of the VS card Agent Set on the switch in the Telephony/Port Address dialog box in l-s-c-u format. Ensure that the **Add Voice Port** check box is checked.
- Click **Save**. The VS card Agent Set is added to the list in the Phonesets window with the status set to Not Acquired.

Notes



Figure 13:The Phonesets Window with VS Card Agent Set Added but Not Acquired



Note: Repeat this procedure to add all VS card Agent Sets.

Acquire Voice Service Card Voice Ports

Follow the steps below to acquire VS card Voice Ports on the Symposium Express Call Center server:

- Log on to the server as the System Administrator or Customer Administrator.
- From the Symposium Express Call Center client window, open the **System Administration** menu and click on **Advanced Functions**. The Symposium Express Call Center System Tree will open.

Notes



Figure 14: Accessing the System Tree in Advanced Functions

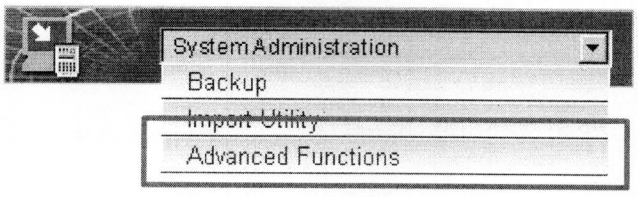
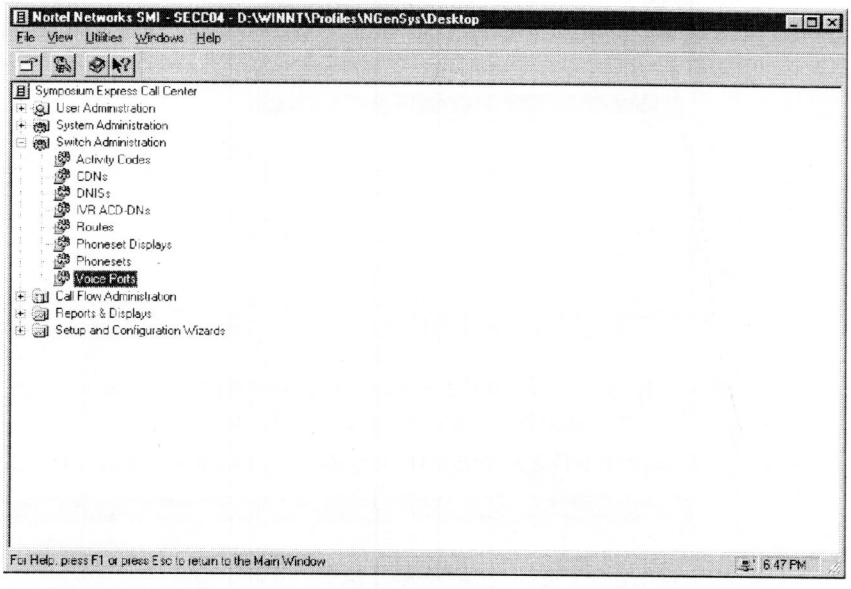


Figure 15: The System Tree with Voice Ports Highlighted

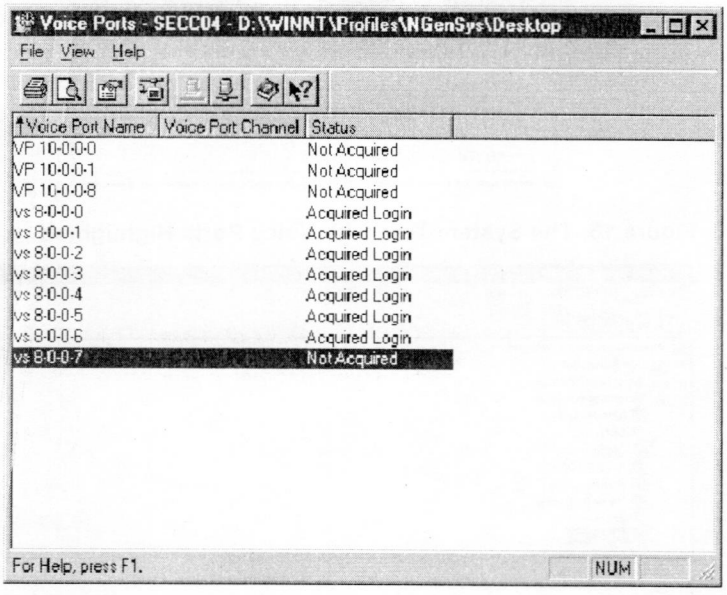


- On the Symposium Express Call Center System Tree, click to open **Switch Administration** and then **Voice Ports**. The Voice Ports window will open.

Notes

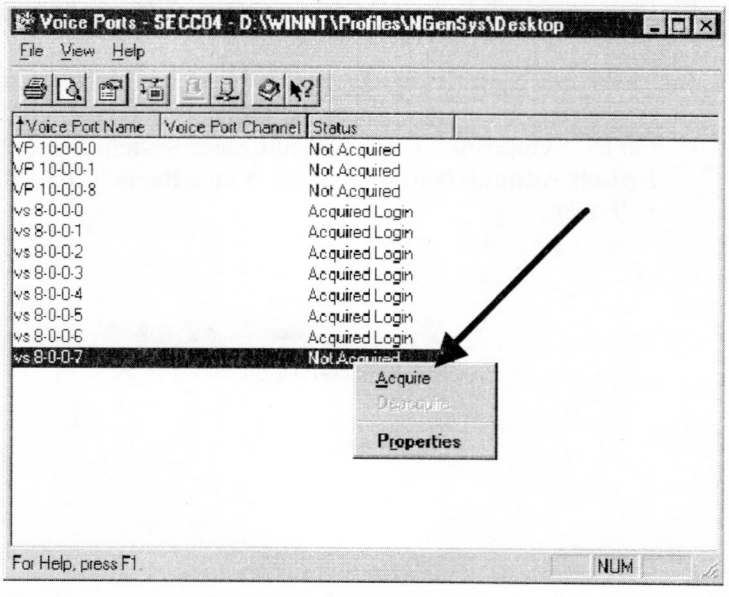


Figure 16: The Voice Ports Window with vs 8-0-0-7 Added But Not Acquired



- Right-click on the **VS card Agent Set** that you wish to acquire. A dialog box with the Acquire option will open.

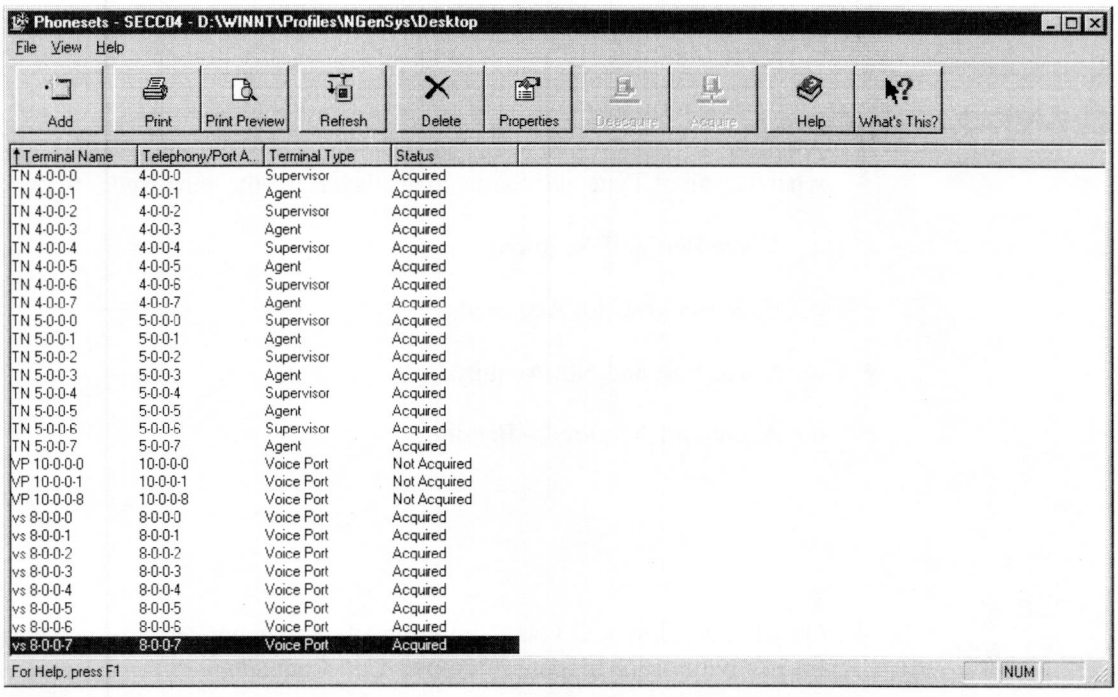
Figure 17: The Acquire Dialog Box on the Voice Ports Window



- Click on **Acquire**. The VS card Agent Set will change from Not Acquired to Acquire Pending.

- Click on the **Refresh** button on the Voice Ports window toolbar. The VS card voice port will change from Acquire Pending to Acquired Login.
- Click on **File** and then **Close** to close the Voice Ports window and return to the System Tree.
- Press the **Escape** key on your keyboard to close the System Tree and return to the Administration window.
- Click on the **Phonesets** icon on the Administration window to open the Phonesets window. Verify that the VS card Agent Set that you added is now acquired.

Figure 18: The Phonesets Window with VS Card Agent Sets Added and Acquired



Notes





Practice

Voice Service Card Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

3. After the VS card Agent Set is added to the list in the Phonesets window what Terminal Type and Status is displayed for the card Agent Set?

- a. Voice Port and Acquired
- b. Phoneset and Not Acquired
- c. Voice Port and Not Acquired
- d. Agent and Acquired – Pending

Select Answer

4. On what window will you acquire the VS card agent sets as voice ports for use with the Symposium Express Call Center?

- a. On the Phonesets window, accessed by clicking on the Phonesets icon on the Administration window
- b. On the Voice Ports window accessed by clicking on the Voice Ports icon on the Administration window
- c. On the Phonesets window accessed by clicking on Phonesets under the Switch Administration menu on the System Tree
- d. On the Voice Ports window accessed by clicking on Voice Ports under the Switch Administration menu on the System Tree

reset

Import the Voice Services Card Information

You must perform two tasks to import VS card information from the switch into the Symposium Express Call Center. First, you must collect VS card configuration information from the switch. Next, you must run the VS Configuration Utility to import the VS card configuration information into Symposium Express Call Center.

Save the Voice Services Card Switch Data into a Text File

You will follow the same procedure that you previously used to collect switch resource information for the Import Wizard to collect the VS card configuration information from the switch. Capture the VS card configuration information in a text file from a terminal emulation software application such as HyperTerminal.

Follow the instructions below to create the text file:

- Setup a TTY connection to the switch using the HyperTerminal program and log in to the switch.
- In the HyperTerminal window, click **Transfer** and then **Capture Text**.
- A dialog box opens and prompts you to enter the name of the text file that you wish to capture. Enter the **file name**.
- In overlay 11, enter the prompts and responses shown in the following table:

LD 11

Prompt	Response	Comment
REQ	prt	
TYPE	2616	
TN		If your switch is an Option 11, enter the TN of the card. If you use any other type of switch, enter the loop/shelf/card number of the card.



Tip: *The TN number that you enter must be for the entire VS card. For an Option 11 switch, this will be a single number. For example, if the VS card is in slot 4, enter the number 4 instead of 4 0 for the first set on the card. This will cause all configured sets on the card to be printed and sent to the text file. For a Option 51 –81C switch, the TN will be three numbers separated by spaces.*

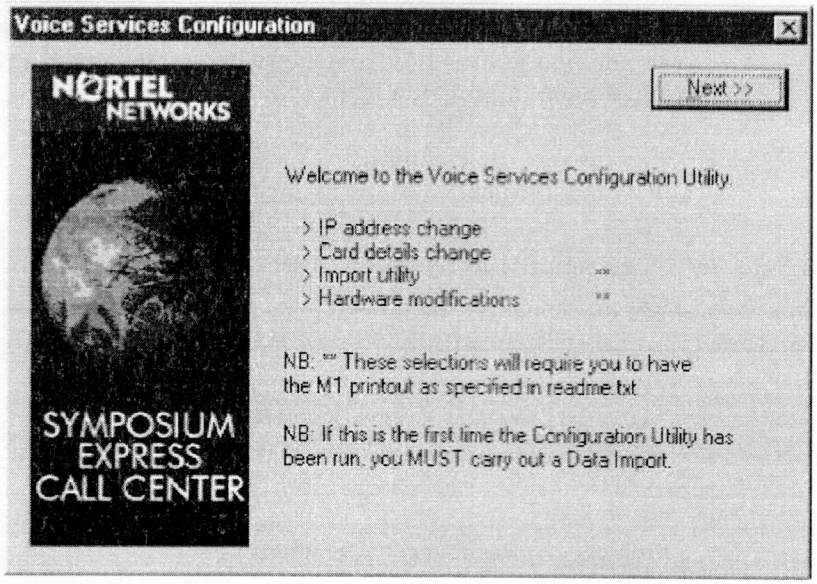
- In the HyperTerminal window, click **Transfer**, **Capture Text**, and then **End**.

Import the Voice Services Card Switch Data

You must run the VS Configuration Utility to import the VS card configuration information into Symposium Express Call Center.

- Log on to the server as NGenSys.
- From the **Start** menu, select **Programs**, **Symposium Express Call Center**, **Voice Services**, and then **Configuration**. The Voice Services Configuration wizard opens.

Figure 19: The Voice Services Configuration Wizard

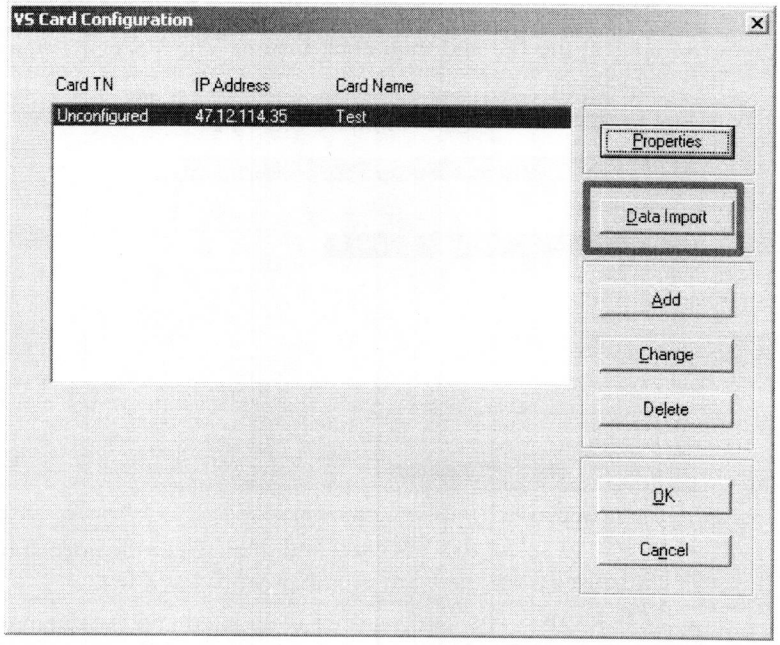


- Click **Next**. The VS Card Configuration window opens.

Notes

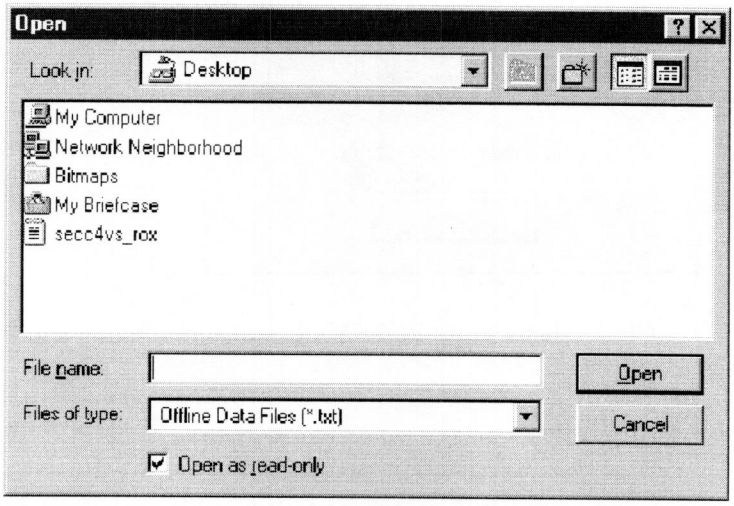


Figure 20: The VS Card Configuration Window



- Click **Data Import**. The Open dialog box opens.

Figure 21: The Open Dialog Box

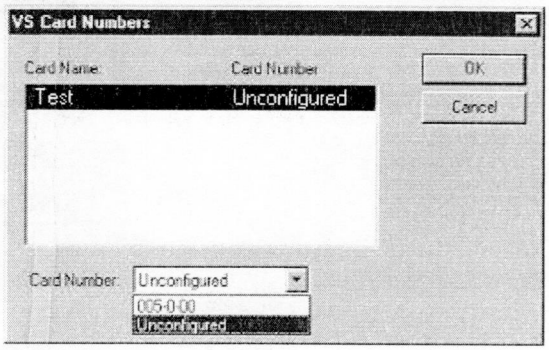


Notes



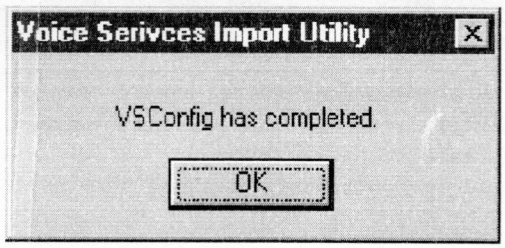
- Browse to locate the text file that you made for the VS card configuration information from Load 11 on the switch.
- Select the file and then click **Open**. The VS Card Numbers dialog box opens.

Figure 22: The VS Card Numbers Dialog Box



- Click to select the **VS card** and then select the corresponding **card number** from the Card Number drop down list.
- Click **OK**. The card number is updated and the database is populated with ACD/TN information for the card. When the database import is completed, the Voice Services Import Utility dialog box opens to inform you that the VSConfig program has completed

Figure 23: Voice Services Import Utility Dialog Box

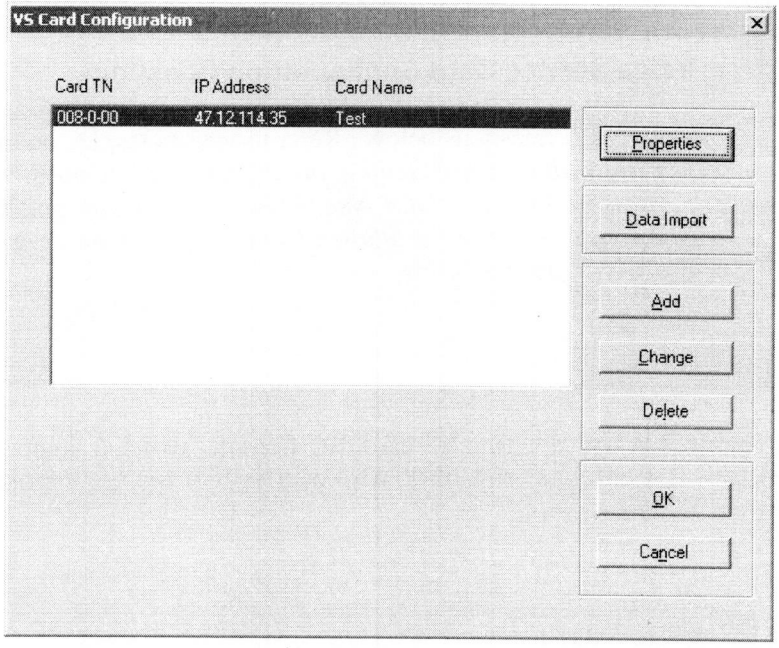


- Click **OK** to return to the VS Card Configuration window.

Notes



Figure 24: The VS Card Configuration Window with the VS Card Configured



Notice that the VS card now has a Card TN displayed instead of "Unconfigured".

Notes





Practice

Voice Service Card Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

5. When capturing VS card data from the switch to import with the VS Configuration Utility, what overlay will you use to print the TN information?

- a. LD 10
- b. LD 11
- c. LD 23
- d. LD 81

Select Answer

6. How is the VS Configuration Utility accessed on the server PC?

- a. From the Start Menu, select Programs, Symposium Express Call Center, Voice Services, and then Configuration
- b. From the Start Menu, select Programs, Symposium Call Center Server, Call Treatment Options, Voice Services, and then Configuration
- c. From the Start Menu, select Programs, Symposium Express Call Center, Call Treatment Options, and then Voice Services Configuration
- d. From the Start Menu, select Programs, Global Knowledge, Symposium Express Call Center, Voice Services Configuration Menu, and then Configuration

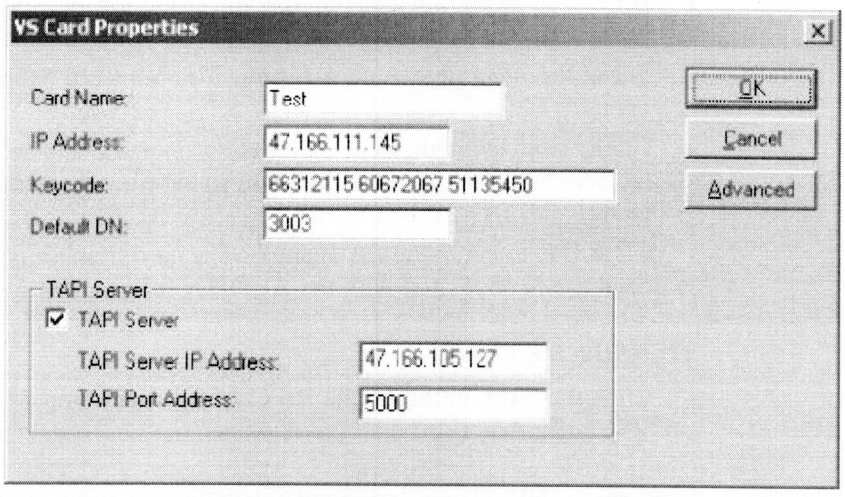
reset

View or Change the Properties for a Voice Services Card

Follow the steps below to view or change the properties for your VS card:

- On the VS Card Configuration window select the VS card, and then click **Properties**. The VS Card Properties dialog box opens

Figure 25: The VS Card Properties Dialog Box



- Make changes to the **Card Name**, **IP address**, **Keycode**, or **Default DN** as required for the change, and then click OK.
- To enable the Prompt/Collect Digits option, click the **TAPI Server** check box and enter the **TAPI Server IP Address** and the **TAPI Port Address**.

Tip: *The TAPI server IP address represents the CLAN IP address of the TAPI server.*

Tip: *The **Advanced** button is for Nortel Networks Product Support use only.*

Notes

To Change VS Cards

Follow the steps below to change VS cards in your Symposium Express Call Center:

- On the VS Card Configuration window, click **Change**. The Open dialog box opens as before.
- Browse to locate the text file that you made for the VS card configuration information from Load 11 on the switch.
- Select the file and then click **Open**. The VS Card Numbers dialog box opens as before.
- Click to select an alternate card than was previously selected and click the corresponding **card number** from the Card Number drop down menu.
- Click **OK** to complete the change. The card number is updated and the database is populated with the ACD/TN information for the new card.

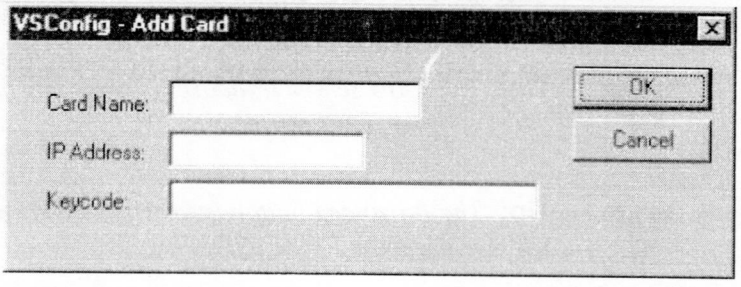
To Add a VS Card

- Click the **Add** button on the VS Card Configuration window. The VSConfig Add Card dialog box opens.



Tip: *To add a VS card, you need to know the card name, the IP address, and the keycode information for the card.*

Figure 26: The VSConfig Add Card Dialog Box



Notes



- Enter the **Card Name**, **IP Address**, and **Keycode** number as required.
- Click **OK**. The new card will appear in the card list on the VS Card Configuration window.

To Remove a VS Card

Follow the steps below to remove a VS card from your Symposium Express Call Center:

- Click to select the VS card that you need to remove and click **Delete**.
- When prompted, click **Yes** to confirm that you wish to delete the card.

Notes





Practice

Voice Services Card Configuration

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

7. What additional configuration must be performed on the VS Card Properties dialog box to enable the Prompt/Collect Digits option?

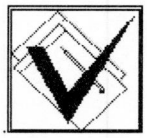
- a. Enter the TAPI Server IP Address
- b. Enter the Symposium Agent Server IP Address and TAPI Port Address
- c. Enter the TAPI Server IP Address and the Symposium Agent Server IP Address
- d. Check the TAPI Server checkbox, enter the TAPI Server IP Address, and enter the TAPI Port Address

Select Answer

8. What information is required to add a VS card?

- a. The number of voice ports and the VS card keycode
- b. The card location in the switch and the number of voice ports
- c. The VS card name, The VS card IP Address, and the VS card keycode
- d. The VS card IP Address, the VS card Subnet Mask, and the IVR ACD-DN configured for the VS card on the switch

reset



Answers to Practice

Voice Services Card Configuration

Check your answers to the practice.

1. Before you add the VS card keycode in the VS Configuration Utility, what will the LED Hex display on the front panel of the VS card display for keycode?

   a. K:XX

   b. K:00

   c. K:08

   d. The LED Hex display will be blank

2. If the Voice Services Monitor is running minimized, how will you open the open the VS Service Status window to stop and restart the VS card?

   a. Double-click on the Voice Services Monitor icon on the Windows toolbar

   b. Click on Start, Programs, Symposium Express Call Center, Voice Services, and then Monitor

   c. Click on Start, Programs, Symposium Express Call Center Client, and then Voice Services Monitor

   d. Open the Symposium Express Call Center client application and select Voice Services Monitor from the System Administration drop-down menu

3. After the VS card Agent Set is added to the list in the Phonesets window what Terminal Type and Status is displayed for the card Agent Set?

   a. Voice Port and Acquired

   b. Phoneset and Not Acquired

   c. Voice Port and Not Acquired

   d. Agent and Acquired – Pending

4. On what window will you acquire the VS card agent sets as voice ports for use with the Symposium Express Call Center?

   a. On the Phonesets window, accessed by clicking on the Phonesets icon on the Administration window

   b. On the Voice Ports window accessed by clicking on the Voice Ports icon on the Administration window

   c. On the Phonesets window accessed by clicking on Phonesets under the Switch Administration menu on the System Tree

   d. On the Voice Ports window accessed by clicking on Voice Ports under the Switch Administration me nu on the System Tree

5. When capturing VS card data from the switch to import with the VS Configuration utility, what overlay will you use to print the TN information?

   a. LD 10

   b. LD 11

   c. LD 23

   d. LD 81

6. How is the VSConfig utility accessed on the server PC?

   a. From the Start Menu, select Programs, Symposium Express Call Center, Voice Services, and then Configuration

   b. From the Start Menu, select Programs, Symposium Call Center Server, Call Treatment Options, Voice Services, and then Configuration

   c. From the Start Menu, select Programs, Symposium Express Call Center, Call Treatment Options, and then Voice Services Configuration

   d. From the Start Menu, select Programs, Global Knowledge, Symposium Express Call Center, Voice Services Configuration Menu, and then Configuration

7. What additional configuration must be performed on the VS Card Properties dialog box to enable the Prompt/Collect Digits option?

   a. Enter the TAPI Server IP Address

   b. Enter the Symposium Agent Server IP Address and TAPI Port Address

   c. Enter the TAPI Server IP Address and the Symposium Agent Server IP Address

   d. Check the TAPI Server checkbox, enter the TAPI Server IP Address, and enter the TAPI Port Address

8. What information is required to add a VS card?

   a. The number of voice ports and the VS card keycode

   b. The card location in the switch and the number of voice ports

   c. The VS card name, The VS card IP Address, and the VS card keycode

   d. The VS card IP Address, the VS card Subnet Mask, and the IVR ACD-DN configured for the VS card on the switch



Skill Check

Voice Services Card Configuration

Use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, *Symposium Express Call Center Call Center Management Guide* and the *Symposium Express Voice Services Card Installation Guide* as reference materials to assist in performing the tasks below.

1. Enter the VS card keycode using the VS Configuration Utility
2. Add and acquire the Voice Services voice ports to Symposium Express Call Center
3. Import the VS card configuration text file from the switch.
   a. Save the VS card configuration information from the switch into a text file.
   b. Run the VS Configuration Utility to import the information into Symposium Express Call Center.
4. Stop and restart the VS card and verify that the VS voice ports have logged in.



Skill Check Feedback

Voice Services Card Configuration

You have successfully completed the Skill Check when the following tasks are completed:

- The VS card keycode is assigned
- The Voice Services voice ports are added and acquired.
- The VS card configuration information is imported to the Symposium Express Call Center server using the VS Configuration utility.

Step	Voice Services Card Configuration	V
1	Assign the VS card keycode a. Open the VS Configuration Wizard b. Select the VS card and click Properties c. Enter the keycode and default DN for the VS card d. Stop and restart the VS card on the Voice Services Monitor	
2	Add and Voice Services voice ports a. Add b. Acquire	
3.	Import the VS Card configuration information text file from the switch a. Connect to the switch b. Export switch data into a text file c. Run the VS Configuration utility and import the VS Card configuration text file	
4	Stop and restart the VS Card and verify that the VS voice ports have logged in	

Summary

In this lesson you used the VS card Configuration Utility to import VS card data to the Symposium Express Call Center server database. Each step has been explained and is available for your reference. The VS card in your call center is now ready for you record and configure call treatments that will be presented to callers.

Backup and Restore

Introduction

This lesson teaches how to backup and restore data on your Symposium Express Call Center server PC. You will learn about the different types of backup that are supported and how to restore your call center to operation after a catastrophic failure. The processes and requirements for each type of backup and restore operation are covered in detail. Hands-on practices are provided to ensure that you will be ready to perform these critical tasks on your job site if the need occurs.

Objective

At the conclusion of this lesson, given your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*, you will be able to perform the following tasks:

- Describe the different types of backup that are supported by Symposium Express Call Center and which files are backed up during each one.
- Schedule a backup of the Symposium Express Call Center database.
- Perform an unscheduled backup of the Symposium Express Call Center database.
- Restore the Symposium Express Call Center database from a tape or remote directory.

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Backing up and Restoring Data"		
Symposium Express Call Center Call Center Management Guide	" Performing Backups"		

Backup and Restore

There are several different types of backups used to preserve data in your Symposium Express Call Center. These backups provide a complete backup strategy that will minimize the loss of data in the event of a catastrophic failure of your Symposium Express Call Center server PC.

The backup strategy for Symposium Express Call Center includes the following types of backups:

- Database Backups
- Full Backups using a third-party disk imaging utility
- Windows 2000 Server Platform Recovery Disk
- Voice Services backups

Note: Previously the term Partial Backup was used to describe a backup of the server's database. The database contains historical data, reports, and call center configuration information. This type of backup is now referred to as a Database Backup. The Database Backup is separate from, and must not be confused with, the Voice Services database and configuration backup.

This lesson covers the procedures for the Database Backup, the Full Backup using a third-party disk imaging utility, and creating the Windows 2000 Server Platform Recovery Disk. The backup and restore functionality for the Voice Services Card is covered in the lesson titled "Voice Services Card Configuration" in your Student Guide.



Tip: *Database backups and Voice Services backups can be done with the call center on line.*

Administration Levels for Backups

The access levels required for backups are as follows:

- Unscheduled Database Backups – Customer administrator (custadmin)
- Scheduled Database Backups – System administrator (sysadmin)
- Full Backups – Windows administrator
- Platform Recovery Disk – Windows administrator
- Voice Services Backups – Windows administrator

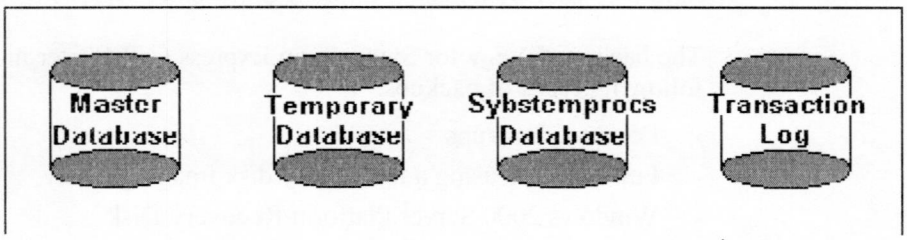
Notes



Database Model

The database model is presented in the figures below.

Figure 1: System Databases



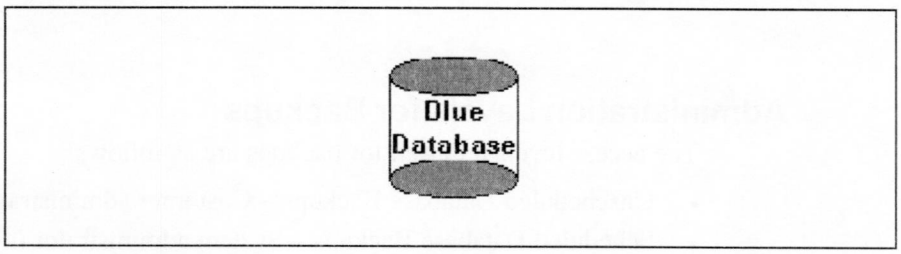
The Master database controls the user database and the operations of SQL server as a whole.

The Temporary database provides storage area for temporary tables and other temporary working storage needs. For example, the intermediate results of "group by" and "order by" commands are stored in the Temporary database.

The Sybstemprocs database stores all the "system stored" procedures.

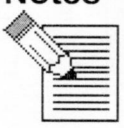
The Transaction log is not part of the system databases; however, it is extremely important for database operations. Its main function is "roll forward" and "roll back" database transactions.

Figure 2: Blue Database



The Blue Database contains historical data and current call center configuration (agents, supervisors, skillsets).

Notes



Symposium Express Call Center Database Backup

A Database Backup backs up historical data, reports, and call center configuration information stored on the server. The Database Backup can save files either to a tape drive or to a remote directory on a network computer. A Database Backup can be used with a Platform Recovery disk to restore all system data, scripts, and statistics in the event of hard disk failure on the Symposium Express Call Center PVI server platform. The Database Backup can be performed while the server is on line.

A user with Customer Administrator access can perform an unscheduled online Database Backup using the Backup utility. A user with System Administrator access can schedule a Database Backup for a specific date and time.

Nortel Networks recommends performing a daily database backup using the Symposium Express Call Center Backup utility.

Configuring a Remote Directory for the Database Backup

You can configure a remote directory for the Database Backup on either a server or a workstation with network access from the Symposium Express Call Center server. The remote computer and network must meet the following requirements:

Table 1: Remote Directory Requirements and Network Requirements

Remote Directory Requirements	Network Requirements
The operating system must be Windows NT 4.0 or Windows 2000.	The remote computer must be in the same network as the Symposium Call Center Server.
The Drive partition for the remote directory must be Windows NT File System (NTFS).	The network connection must be through the CLAN.
The directory used for the backup must have enough space available to hold the backup files.	Ensure that the CLAN has low traffic during the scheduled time for database backup.

Notes



The following procedure outlines the tasks that must be performed to configure a remote directory on a network computer for database backups.

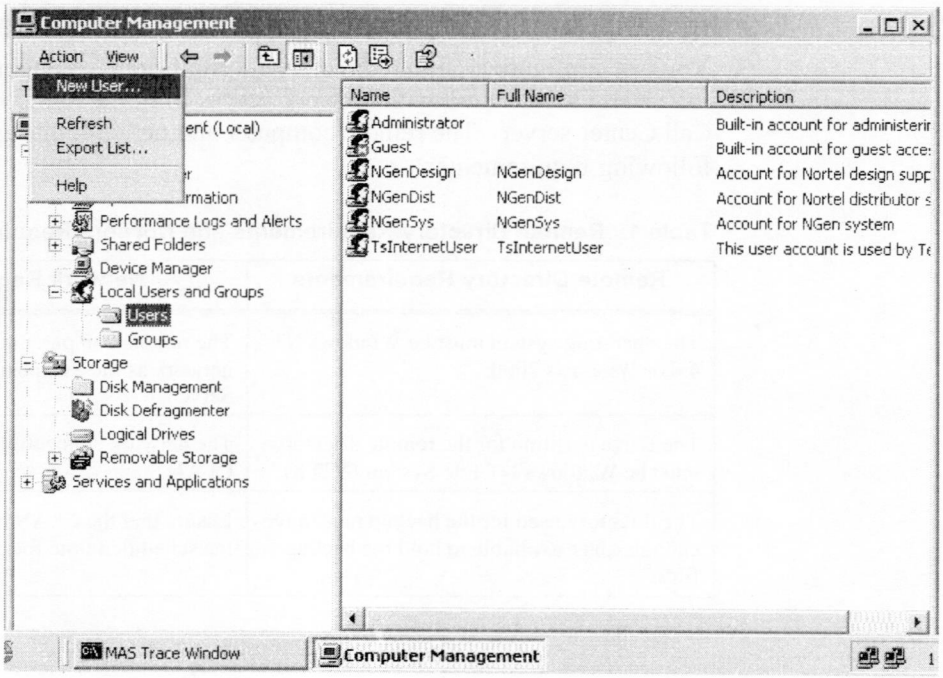
Note: This procedure assumes that the remote directory will be created on a PC using the Windows 2000 operating system. The procedure will be slightly different for a Windows NT PC.

Create New User Account in the Administrators Group

First, you must create a Windows user account with administrator privileges on the network computer where the remote directory will be located.

- Logon to Windows 2000. From the **Start** menu, click on **Programs**, **Administrative Tools**, and then **Computer Management**. Click on the plus sign (+) next to **Local Users and Groups** to expand the tree and then click to highlight **Users**. On the window menu bar, click on **Action** and then **New User** (optionally, you can right-click on **Users**, and then click on **New User**).

Figure 3: Adding a New User on the Computer Management Window

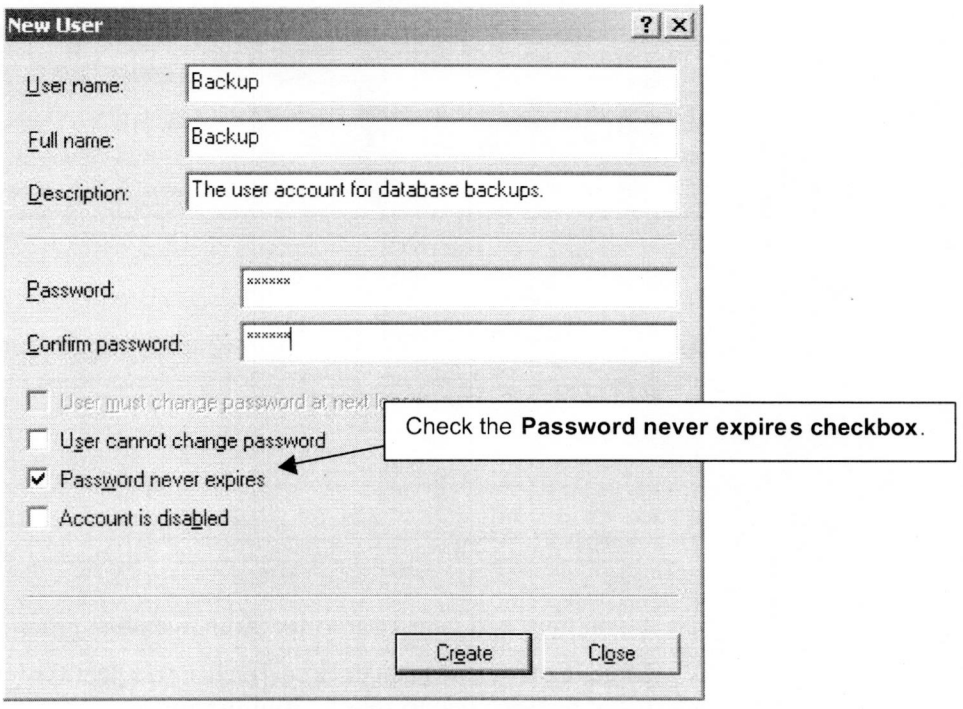


Notes



- In the New User dialog box, enter the appropriate information for **User name**, **Full name**, and **Description**. Click to select **Password Never Expires**. When you are satisfied with your new user information, click on **Create**.

Figure 4: The New User Dialog Box

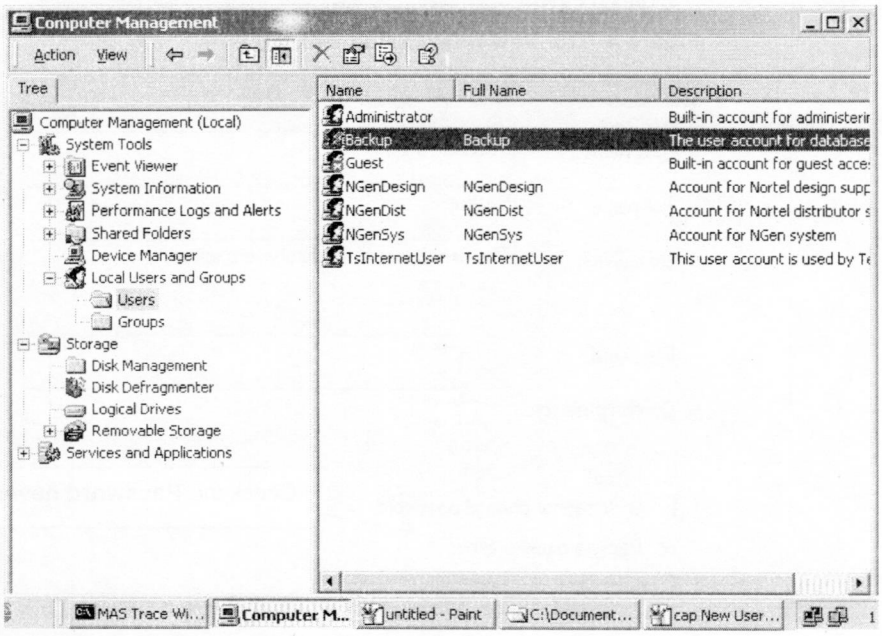


Caution: *When you create the new user account for remote database backups, you must ensure that the **User Must Change Password at Next Logon** checkbox is unchecked. If this checkbox is checked, the Symposium Express Call Center may not be able to connect to the remote computer and the backup will fail.*

Notes

- The new user account that you created appears in the right pane of the Computer Management screen.

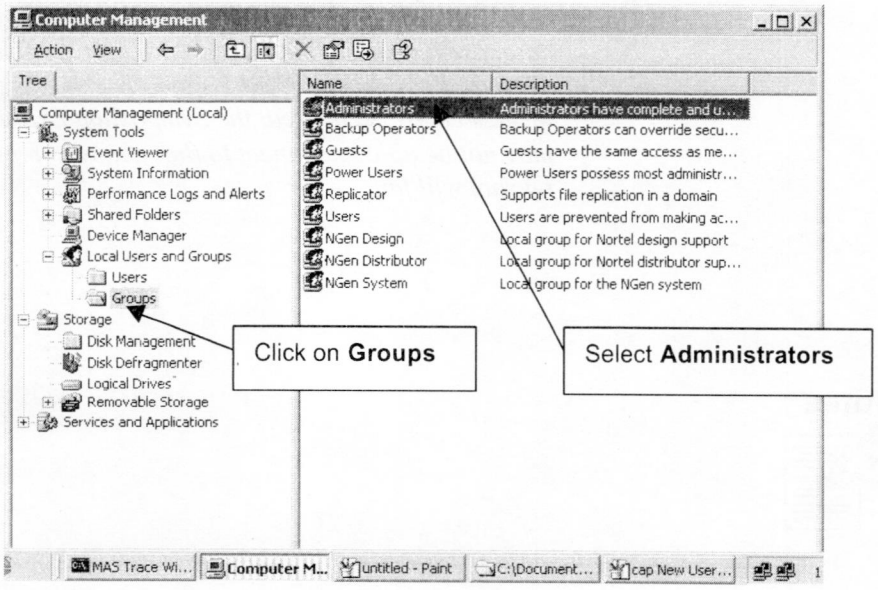
Figure 5: The New User Account on the Computer Management Window



Next, you must add your User to the Administrators group.

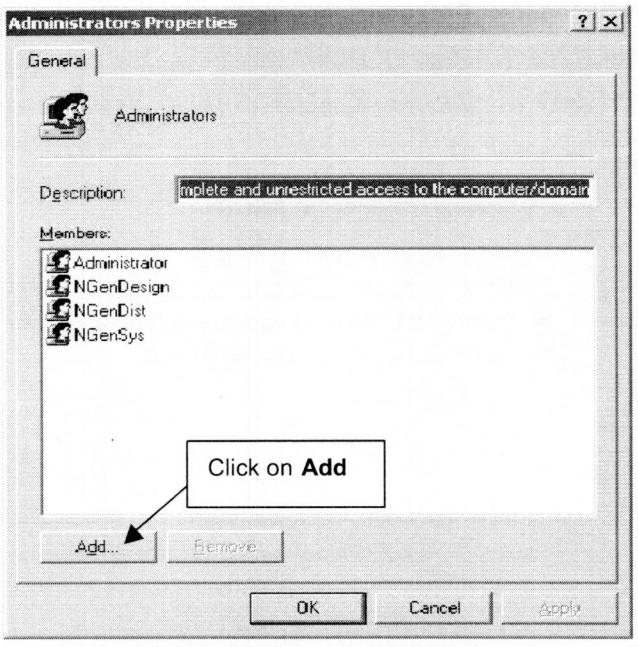
- Under Computer Manager (Local), click to select **Groups** and from the list of names, click to select **Administrators**.

Figure 6:Selecting Administrators on the Computer Management Window



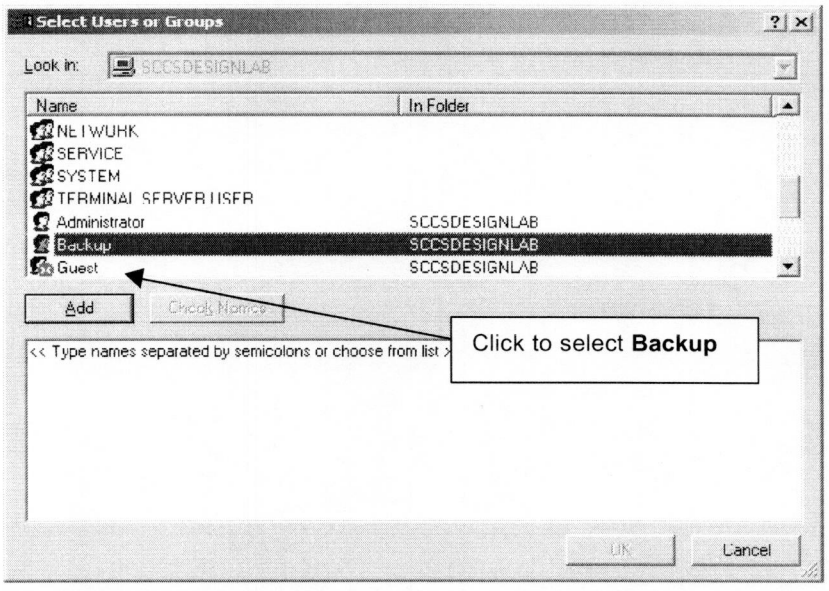
- On the Administrators Properties dialog box, click on **Add** to add a new member to the Administrators group.

Figure 7:The Administrators Properties Dialog Box



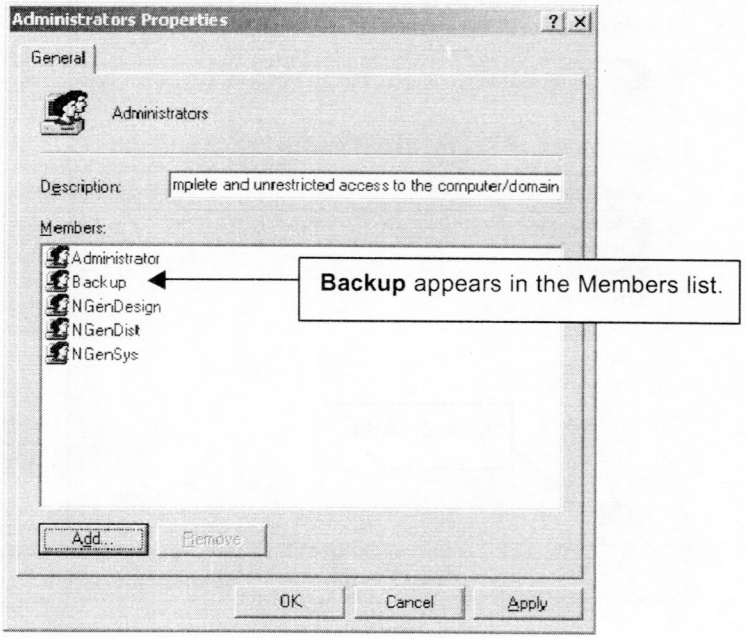
- On the Select Users or Group dialog box, scroll down and click to select your new user from the list of users. For this example this new user is named **Backup**.

Figure 8: Selecting the New User from the Select Users or Group Dialog Box



- Click on **Add** to add the new user to the Administrators group and then click on **OK** to close the dialog box. For this example, **Backup** appears in the Members list.

Figure 9: The User Backup on the Administrators Properties Dialog Box



Notes

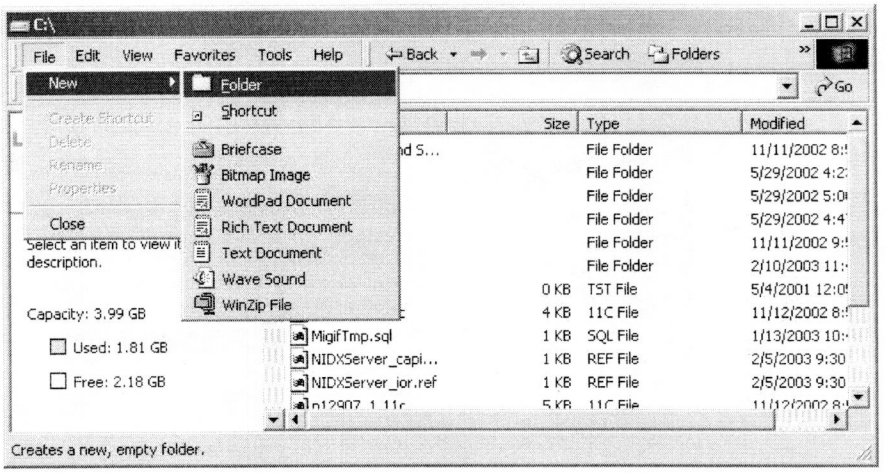


Create a Shared Directory for the Remote Database Backup Files

Now that you have created the user account that will be used by the Backup utility on the Symposium Express Call Center server, you must create a shared directory with enough space to store the Database Backup files.

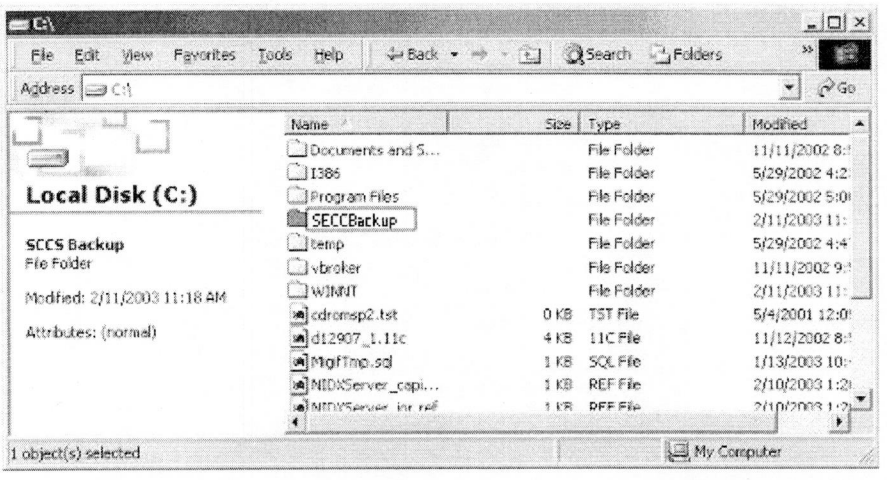
- Form the Windows 2000 desktop, click on **My Computer** and then click on a **hard drive** with sufficient space available.
- On the windows menu bar, click on **New** and then **Folder** to create a new directory entry.

Figure 10: Creating a New Folder on an Available Hard Drive



- Type the name of new folder, for example **SECCBackup**.

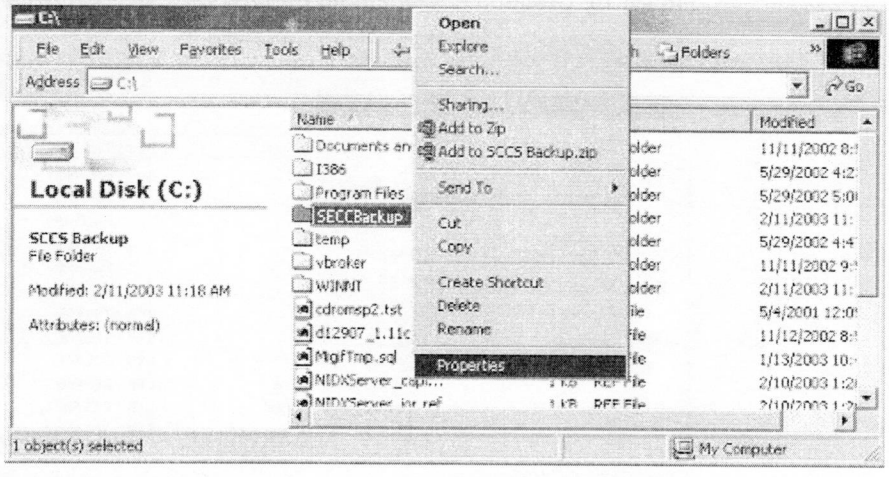
Figure 11: Enter the Name of the New Folder



Caution: *The name of the remote directory must not contain any spaces. Spaces in the remote directory will cause errors in the database backup.*

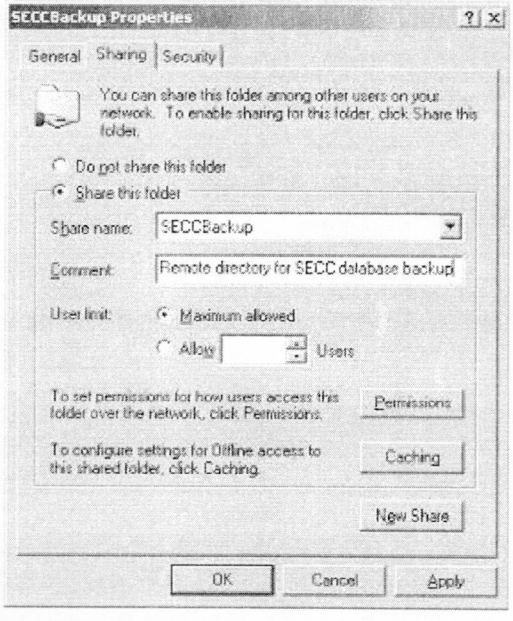
- Right-click on the new folder that you created and select **Properties** from the drop-down menu.

Figure 12: Select Properties from the Menu



- On the Properties window, click to open the **Sharing** tab.

Figure 13: The Sharing Tab of the Properties Window

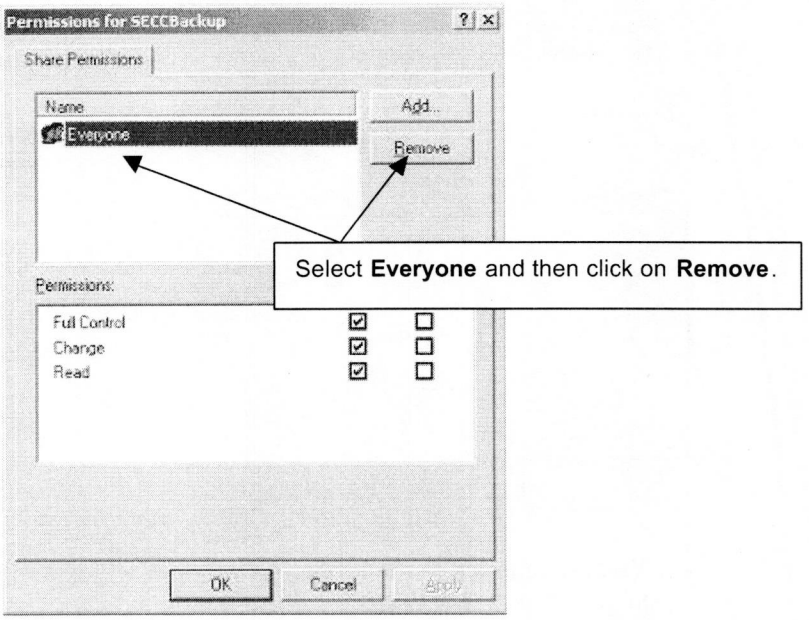


- Click to select the **Share this folder** radio button. Verify that the name of the folder appears in the **Share name:** data field.
- Click on the **Permissions** button. The Permissions data box appears.

Note: Windows 2000 defaults to allow everyone to have access to your new folder.

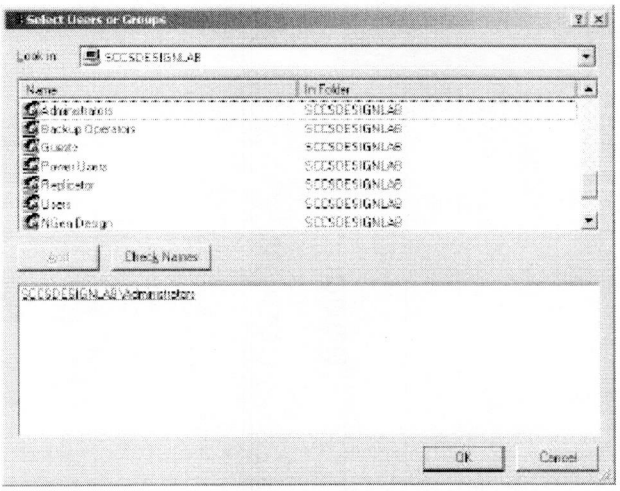
- If Everyone appears in the Name field, highlight **Everyone** and click the **Remove** button.

Figure 14: Removing Everyone from the Share Permissions List



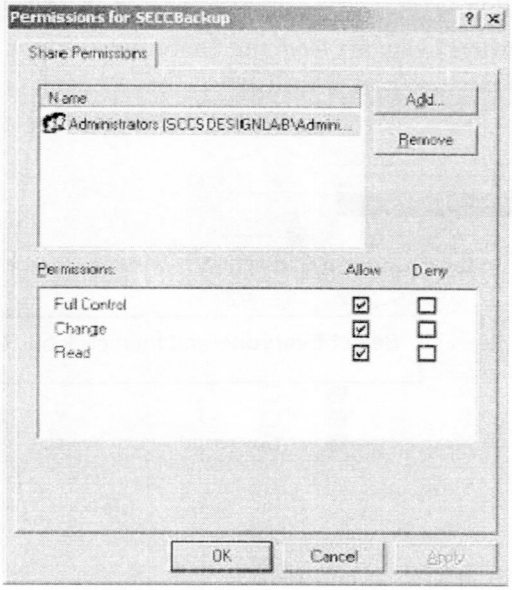
- Click on the **Add** button. The Select Users or Groups window opens.

Figure 15: The Select Users or Groups Window



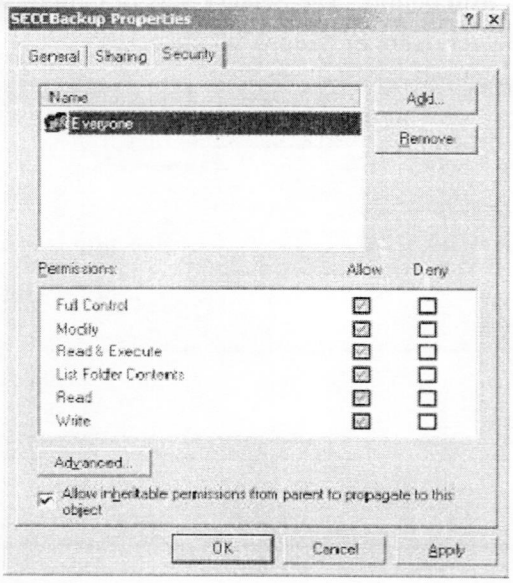
- Scroll down the name box to select **Administrators** group and then click on **Add**. The location of the Administrators group appears in the lower box. Click on **OK** to close.
- **Administrators** appears in the Name field of the Share Permissions tab. Click to enable a check mark in each **Allow** checkbox (**Full Control**, **Change**, and **Read**). Click on **OK**.

Figure 16: Settings Permissions for the Administrators Group



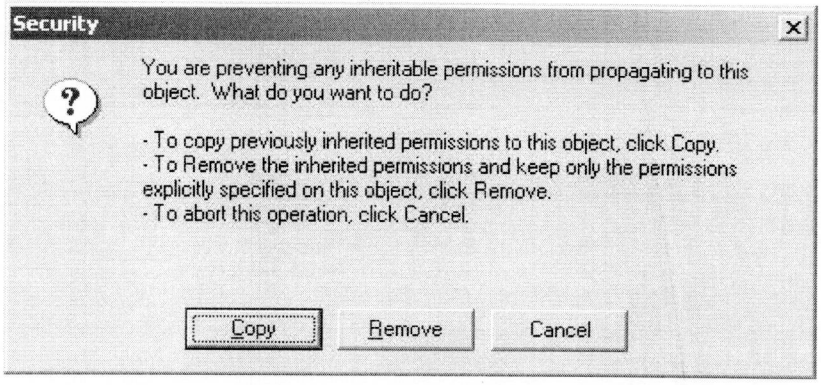
- You are returned to the Properties window. Click to open the **Security** tab.

Figure 17: The Security Tab of the Properties Window



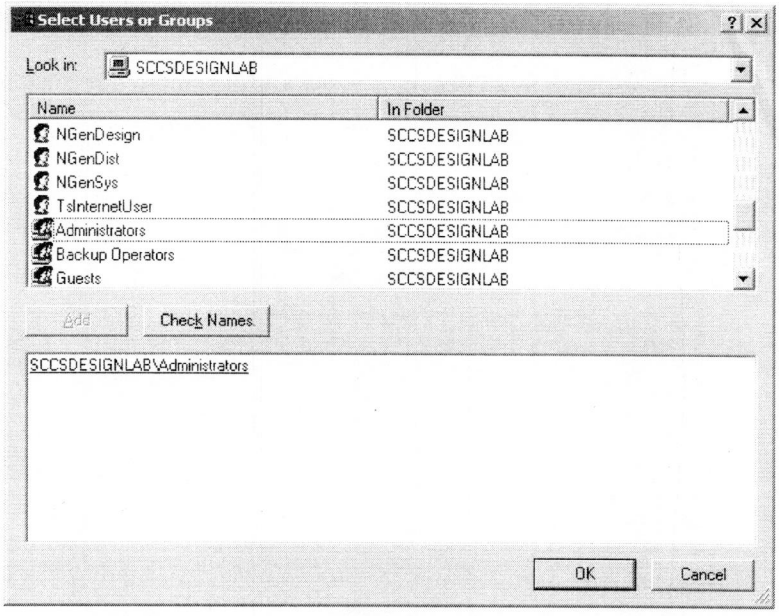
- Deselect the check mark in the checkbox for **Allow inheritable permissions from parent to propagate to this object**. The following Security question box appears.

Figure 18: The Security Question Box



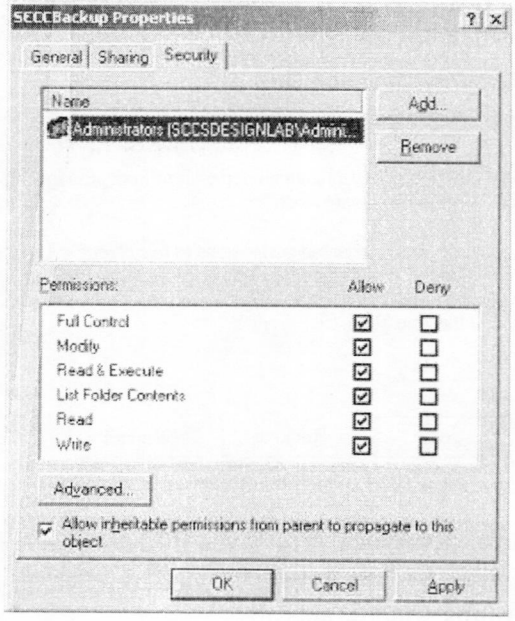
- Click **Remove**. **Everyone** is removed from the Name list
- On the Security tab of the Properties window, click on **Add**. The **Select Users or Groups** window appears.

Figure 19: The Select Users or Groups **Window**



- Scroll down and select **Administrators** and then click on **Add**. The location of the Administrators group appears in the lower box.
- Click **OK**. Administrators is added to the Name list on the Security tab of the Properties window

Figure 20: Administrators on the Security Tab of the Properties Window



- Click to place a check mark in all the **Allow** checkboxes.
- Click **OK** to close.

The network computer is now set up for remote directory backups.

Notes



Configuring the Symposium Express Call Center for Database Backup to a Remote Directory

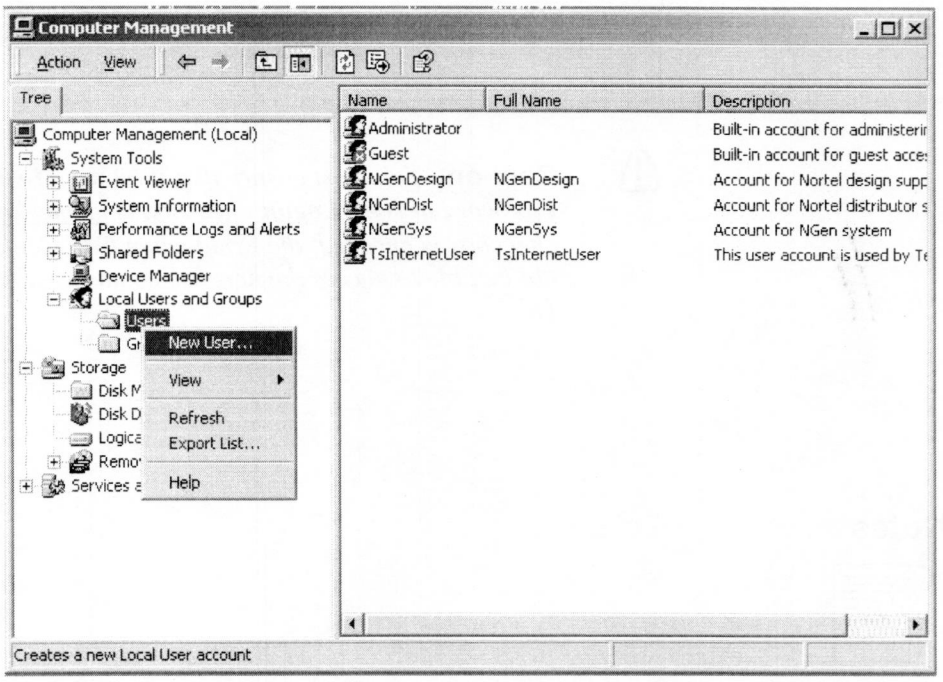
Now that you have configured the remote directory to be used for the Database Backup, you must configure the Symposium Express Call Center PVI server platform to use the remote directory instead of the tape drive. To configure the server, you will create a user account in the Administrators group for Database Backup, set account log on as a service, and change the path for the Database Backup from the tape drive to the remote directory.

Create a User in the Administration Group

The next step is to create a local Windows user account with administrator privileges on the Symposium Express Call Center server that is identical to the user account that you created on the network computer where the remote directory will be located:

- On the Symposium Express Call Center server, from the **Start** menu, click on **Programs**, **Administrative Tools**, and then **Computer Management**. Click on the plus sign (+) next to **Local Users and Groups** to expand the tree and then click to highlight **Users**. On the window menu bar, click on **Action** and then **New User** (optionally, you can right-click on **Users**, and then click on **New User**).

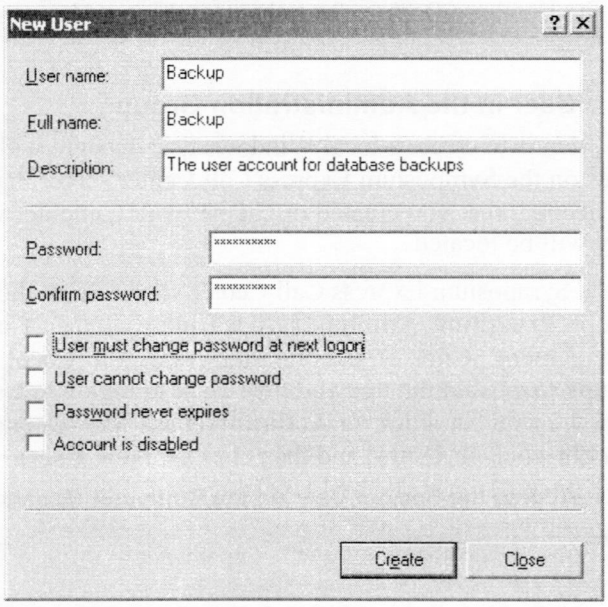
Figure 21: Adding the Backup User on the Computer Management Window



- In the New User dialog box, enter the appropriate information for **User name**, **Full name,** and **Description**. Click to select **Password Never Expires**. When you are satisfied with your new user information, click on **Create**.

Note: The User name must be identical to the user account that you created on the network computer.

Figure 22: The New User Dialog Box

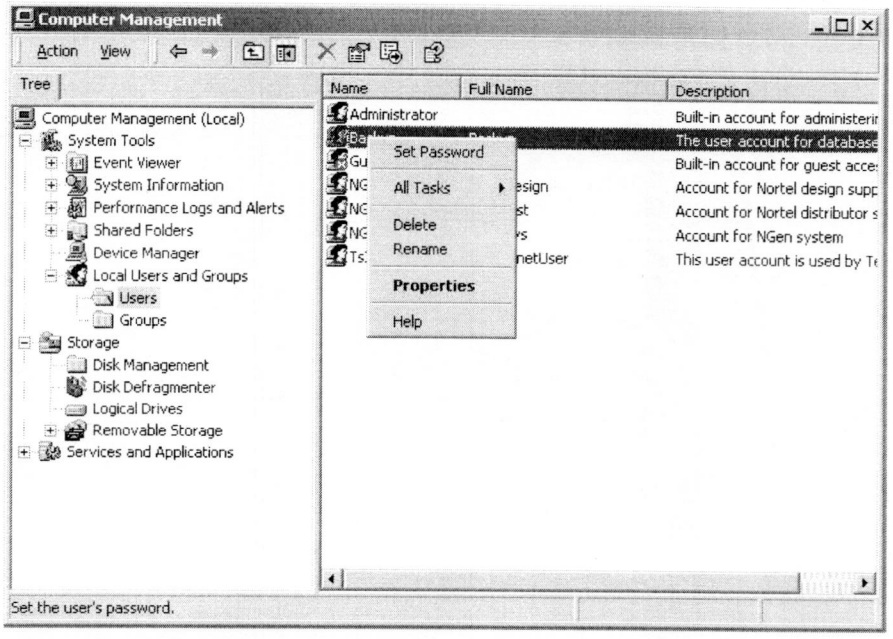


Caution: *You must ensure that the **User Must Change Password at Next Logon** checkbox is unchecked. If this checkbox is checked, the Symposium Call Center Server may not be able to access the network computer and the backup will fail.*

Notes

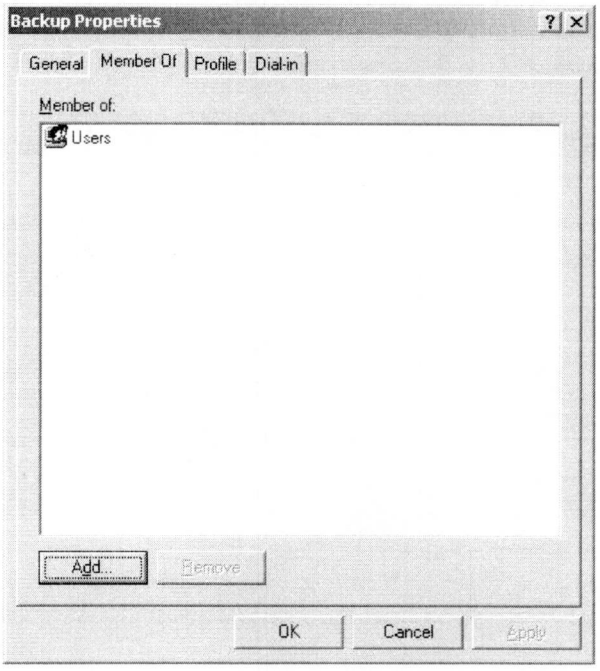
- Right-click on the user that you created and select **Properties** from the drop-down menu that opens.

Figure 23: Configure the New User on the Computer Management Window



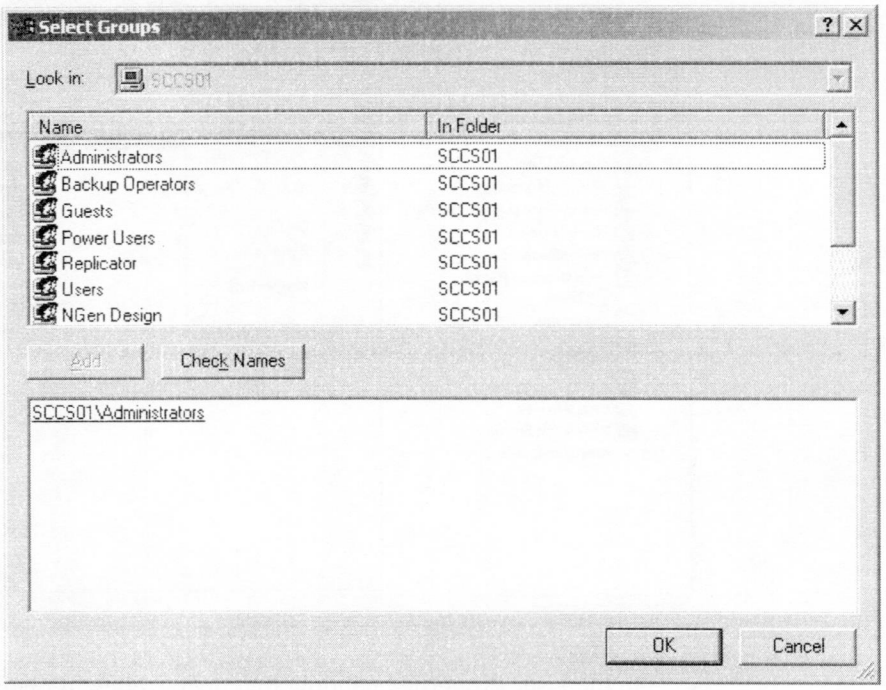
- On the User Properties window that opens, click to open the **Member Of** tab and then click on the **Add** button.

Figure 24: The Member Of Tab on the User Properties Window



- On the Select Groups window that opens, click to select **Administrators** from the **Name** list and then click on the **Add** button.

Figure 25: The Select Groups Window



- Click on the **OK** button to close the Select Groups window.
- Click on **Apply** and then **Close** on the Members of tab of the User Properties window.

Notes

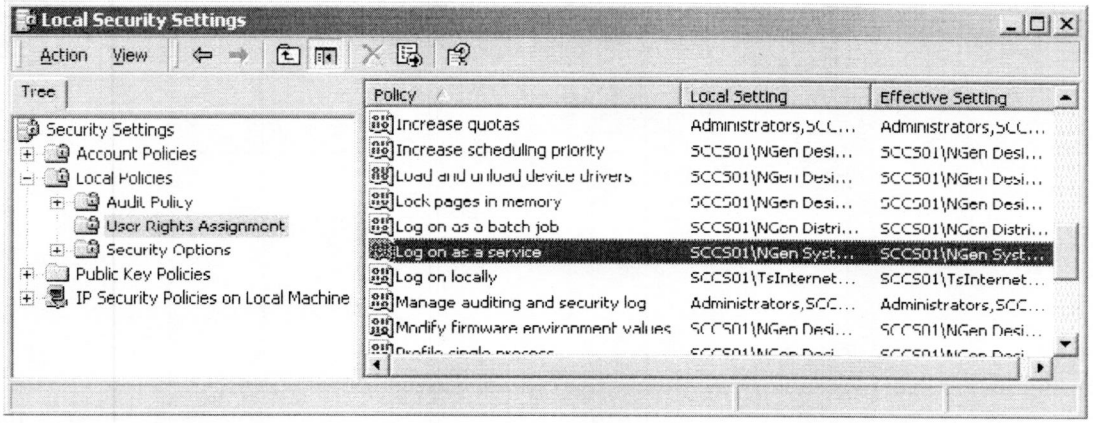


Set the User Account Policy to Log On as a Service

Because the Symposium Express Call Center Backup utility will use this new user account to backup the database files to the remote directory, this account must be set to "Log on as a service".

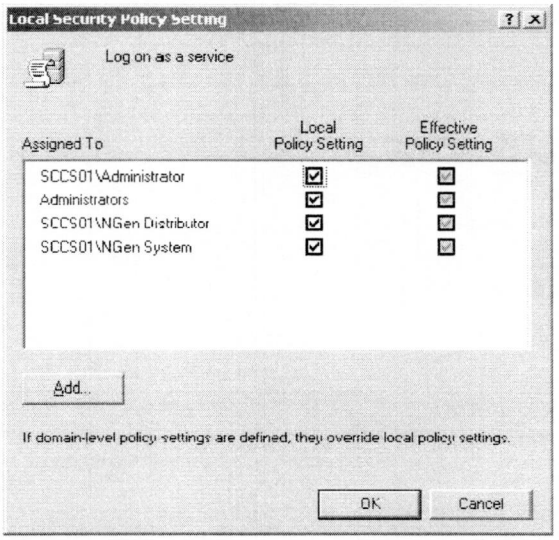
- On the Symposium Call Center Server, from the **Start** menu, click on **Programs**, **Administrative Tools**, and then **Local Security Policy**. The Local Security window opens.

Figure 26: The Local Security Settings Window



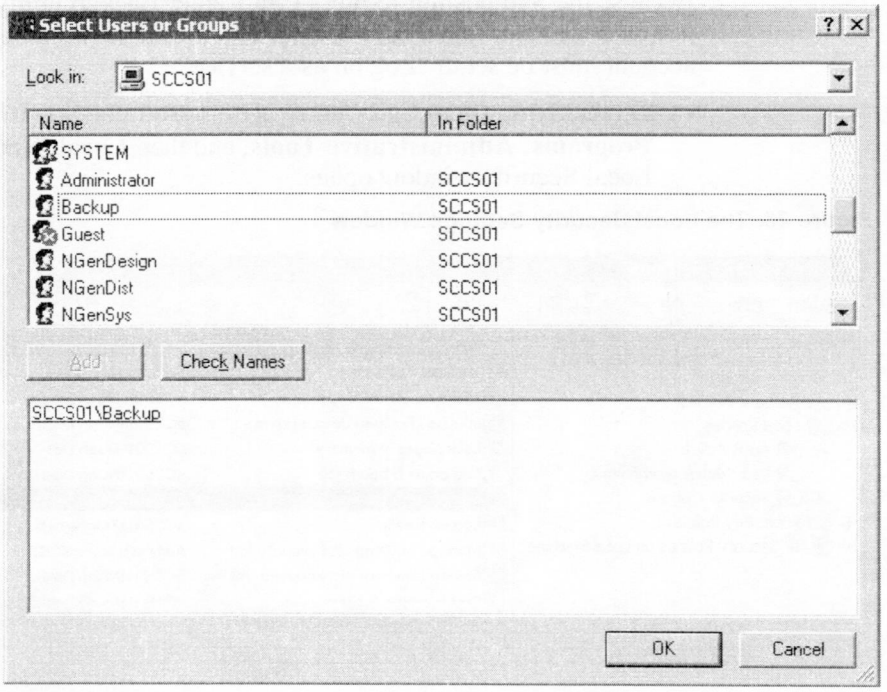
- On the left panel of the Local Security Settings window, navigate to **Local Policies** and then **User Rights Assignment**.
- On the right panel of the Local Security Settings window, double-click on **Log on as a service**. The Local Security Policy Setting window opens.

Figure 27: The Local Security Policy Setting Window



- Click on the **Add** button. The Select Users or Groups window opens.

Figure 28: The Select Users or Groups Window



- Click to select the user that you created from the **Name** column and then click on the **Add** button.
- Click on the **OK** button to close the Select Users or Groups window.
- Click on the **OK** button to close the Local Security Policy Setting window and then close the Local Security Settings window.

Notes

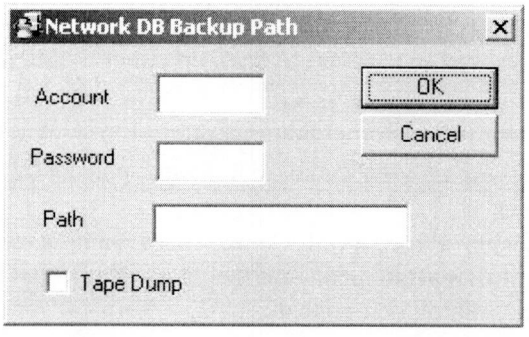


Set the Path for the Database Backup to the Remote Directory

In order for the Symposium Express Call Center Backup utility to be able to save the Database Backup files to the remote directory, you must change the path from the tape drive to that directory. To set the path, you will enter the account and path information through a dialog box in Symposium Express Call Center, and deselect the tape backup option.

- On the Symposium Express Call Center server desktop, from the **Start** menu, click on **Programs**, **Symposium Express Call Center**, and then **Network DB Backup Path**.

Figure 29: The Network DB Backup Path Dialog Box



- Ensure that the **Tape Dump** checkbox is unchecked. (You will only check the **Tape Dump** checkbox if you want to back up the database to tape.)
- Enter the **User Name** for the account that you created on the network computer and the Symposium Express Call Center server PC for remote directory backups in the Account data box.
- Enter the **Password** for the account that you created on the network computer and the Symposium Express Call Center server PC for remote directory backups in the Password data box.
- Enter the **network path** for the shared directory that you created on the network computer in the Path data box. Use the following format: **computername\sharename**
- Click on the **OK** button to save your settings and close the Network DB Backup Path dialog box.

Notes



Perform an Unscheduled Database Backup

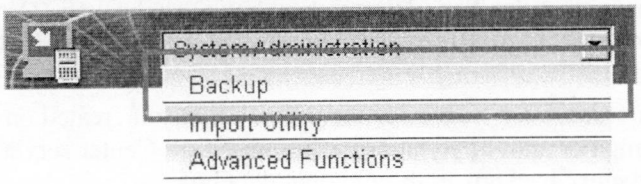
Follow the steps below to perform an unscheduled Database Backup to either the tape drive or a remote directory:

- Make sure the services on your server are up.

Tip: *The Symposium Express Call Center Database Backup uses the HDM service. If this service is down, the Database Backup cannot start. The system will generate an error message in the Backup Status window stating that the backup completed abnormally.*

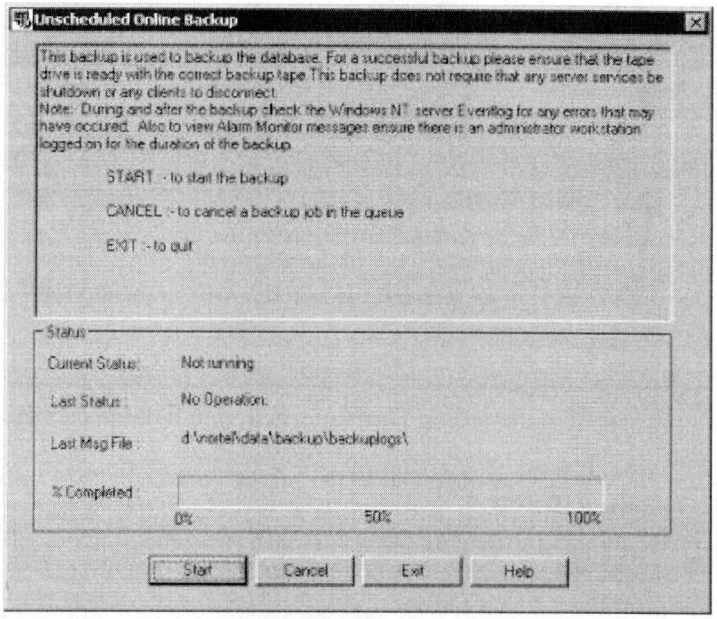
- Make sure your server is set up to back up either to a tape or to a remote directory.
- Log on as either the customer administrator or system administrator.
- If you are backing up your database to a tape, place a tape in the tape drive of the server.
- In the Symposium Express Call Center client window, click to open the **System Administration** menu and then click **Backup**. The Unscheduled Online Backup dialog box appears.

Figure 30: Accessing the Backup Utility from the System Administration Menu



Notes

Figure 31: The Unscheduled Online Backup Dialog Box



- Click **Start** to begin the Database Backup process.
- The Database Backup starts and runs until it is complete. You can view the status of the backup in the lower half of the Unscheduled Online Backup window.

Tip: *You can use the Cancel button to cancel a backup job in queue. You cannot cancel a backup job while it is running.*

Tip: *The Last Msg file is created on the server and contains information on any errors that ere encountered during the backup.*

Notes

Schedule a Database Backup

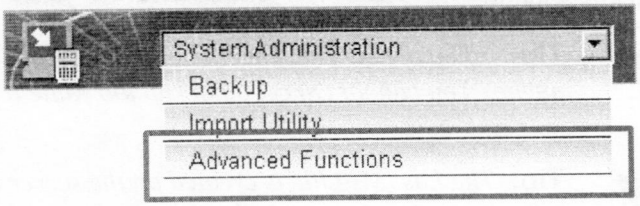
Tip: *The recommended time to schedule your backups is between 2:00 AM and 3:00 AM.*

Caution: *If a backup is started before midnight, it must be completed before midnight. At midnight, the system automatically begins to purge old data. This will cause resynchronization problems if this backup tape is used for a restore.*

Follow the steps below to perform a scheduled database backup:

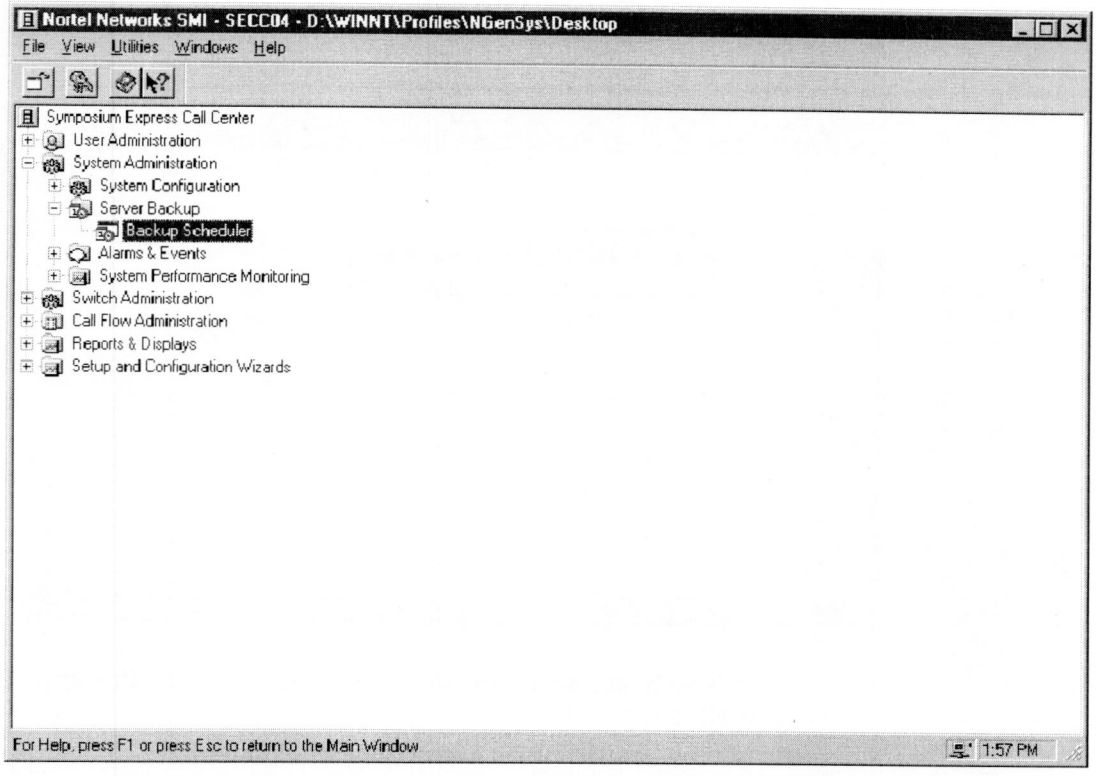
- Log on to the Symposium Express Call Center server PC as the **System Administrator**.
- If you are backing up your database to a tape, place a tape in the tape drive of the server.
- In the Symposium Express Call Center client window, click to open the **System Administration** menu and then click **Advanced Functions**. The Symposium Express Call Center Administration window with the system tree appears.

Figure 32: Accessing the Backup Utility from the System Administration Menu



Notes

Figure 33: The System Tree with Backup Scheduler Highlighted

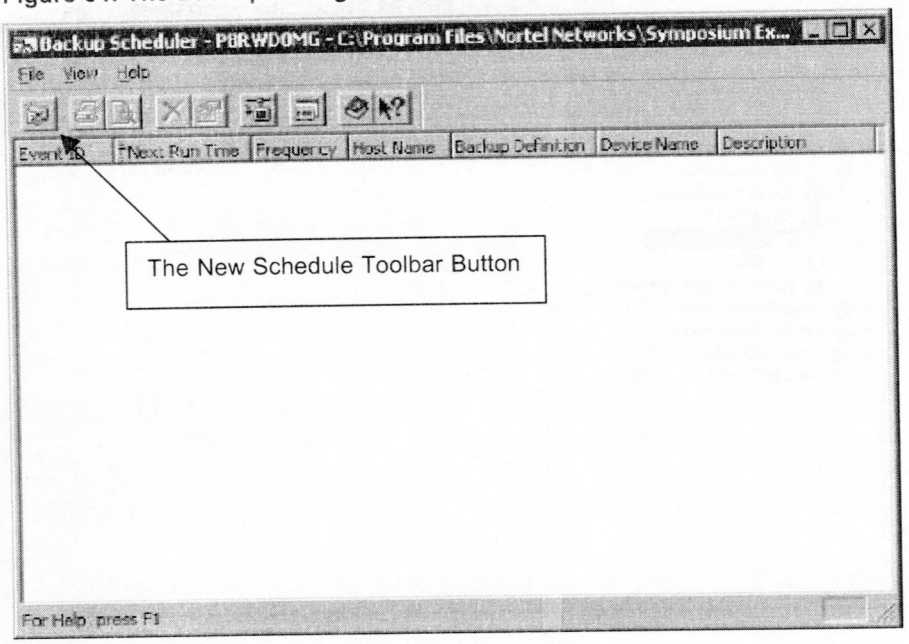


- Click on **System Administration**.
- Click on **Server backup**.
- Double-click on **Backup Scheduler**. The Backup Manager window opens.

Notes

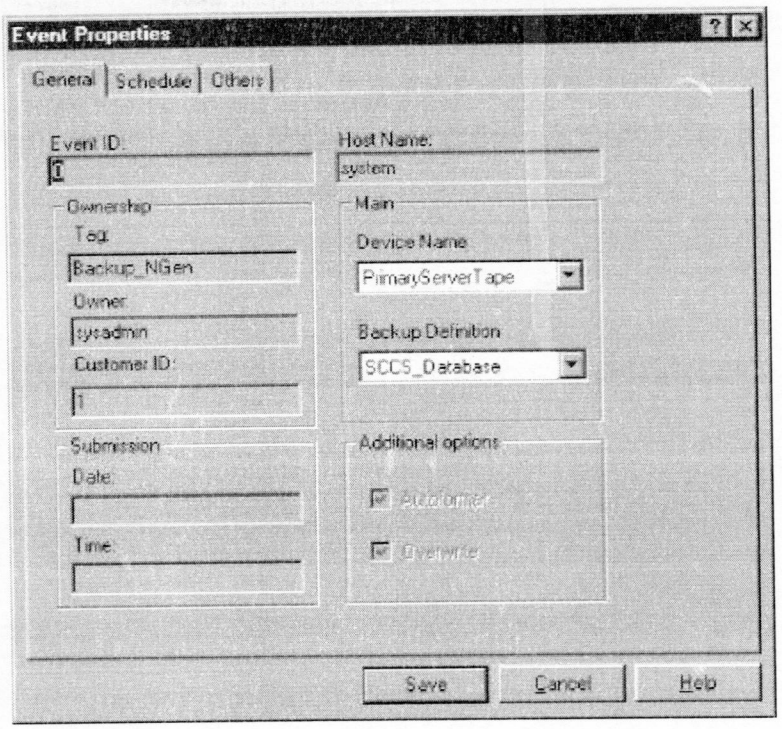


Figure 34: The Backup Manager Window



- Click the **New Schedule** button on the tool bar. The Event Properties window will open.

Figure 35: The General Tab of the Event Properties Window

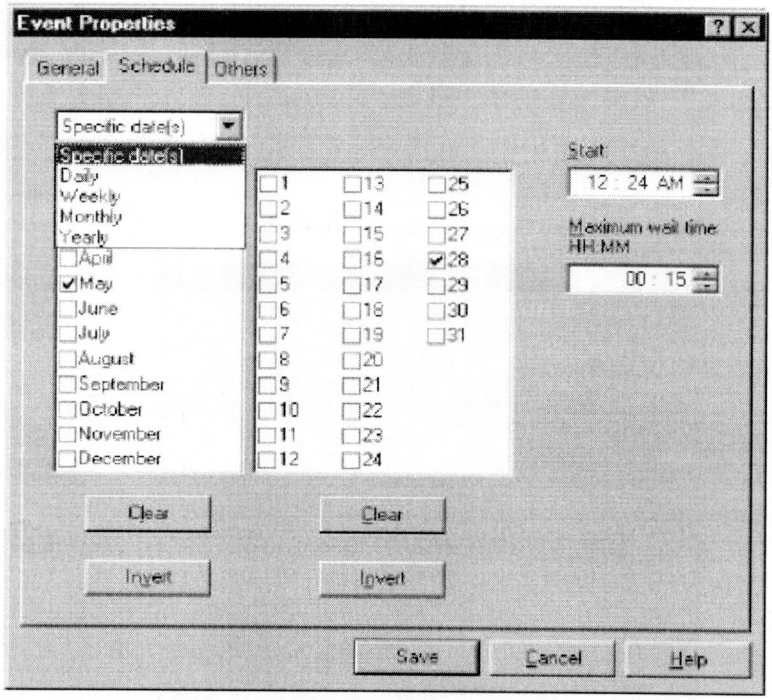


- In the Device Name drop-down box, ensure that **PrimaryServerTape** is selected.

Tip: *This is the default value for both back to tape and backup to remote directory.*

- Click to select **SCCS_Database** from the **Backup Definition** drop-down list.
- Click to open the **Schedule** tab.

Figure 36: The Schedule Tab of the Event Properties Window



- Either click to select the **interval** that the backup will run (Daily, Weekly, Monthly, or Yearly) from the drop-down list or specify the individual dates for the backup to be run by clicking on the **Months** and **Days**.
- Enter the time of day that the backup will start in the **Start** data box.
- Enter the maximum wait time that the backup is allowed before it must start in the **Maximum wait time** data box. When this time is exceeded, the system will try to execute the backup again.
- Click the **Save** button to schedule the Database Backup.

The Database Backup starts and runs when scheduled. You can view the status of the backup in the lower half of the Backup Status window.

Monitor the Database Backup

You can monitor the status of a scheduled or unscheduled Database Backup using status windows on the client or by viewing the backup status in the log file at:

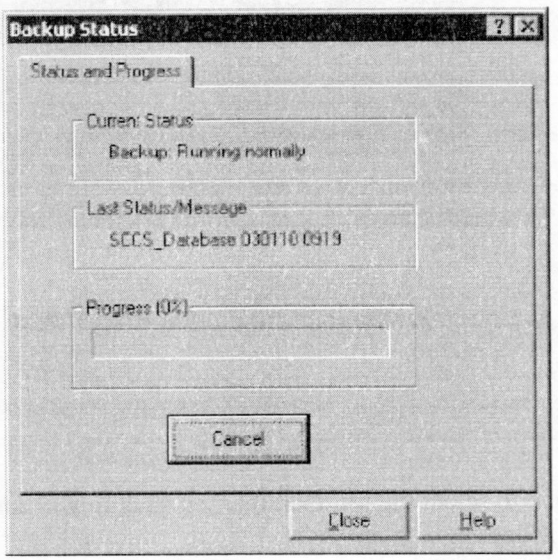
d:\Nortel\data\backup\backuplogs

View the Status of a Scheduled Database Backup

Use the Backup Status window to view the status of a scheduled Database Backup as it runs. To access the Backup Status window, from the Backup Scheduler window, select **View** and then **View backup status**. The Backup Status window appears.

Note: The following example shows the contents of this window for a Database Backup that has successfully started.

Figure 37: The Backup Status Window



Notes



View Log Files to Verify the Success of a Backup

You can use a text editor such as Notepad or WordPad to check the backup log to verify that a Database Backup was successful. The backup log is generated at the end of the backup, and is stored on the server in the following directory:

d:\Nortel\data\backup\backuplogs

Tip: *The file name for a backup log is SCCS_Database yymmdd hhmm.LOG where yymmdd hhmm are the date and time of the backup.*

Tip: *The contents of the backup log are the same whether the backup is to the tape drive or to a remote directory.*

If a Database Backup is successful, the backup log contains all of the following messages:

Figure 38: The Backup Log File

```
[DATE/TIME] - Starting backup of 'SCCS_Database' to device
'PrimaryServerTape' ...


[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete
(database cbc).

[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete
(database blue).

[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete
(database master).


[DATE/TIME] - The backup of 'SCCS_Database' was completed
successfully.
```

Make sure that there are no error messages in the log file. If your database backup produces error messages, repeat the backup. If it produces error messages again, contact Nortel Networks customer support.

Change a Scheduled Database Backup

You can change any detail of a scheduled Database Backup using the Event Properties window. To change a scheduled Database Backup, double-click the scheduled backup that you want to change on the Backup Scheduler window.



Tip: *For detailed step-by-step instructions, with the Backup Scheduler window open, press the **F1** key on the keyboard to access the Online Help files.*

Delete a Scheduled Database Backup

To delete a scheduled Database Backup: select the scheduled Database Backup that you want to delete on the Backup Scheduler window and then click on **File** and then **Delete**.

Cancel Database Backups

You can cancel an unscheduled Database Backup that has been queued but has not yet started running. You have 60 seconds from the time you click **Start** to cancel the backup. Once a backup has started running, you cannot cancel it.

Notes





Practice

Backup and Restore Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

1. What are the different types of backup available with Symposium Express Call Center?

- a. Full Backups using a third-party disk imaging utility
- b. Unscheduled or Scheduled Database Backup
- c. Windows 2000 Server Platform Recovery Disk
- d. Voice Services backup

Select Answer

2. What level of system access is required to schedule a Database Backup from the system tree?

- a. Windows 2000 Administrator
- b. System Administrator
- c. Customer Administrator
- d. Senior Supervisor

reset

Select Answer

3. When configuring a remote directory for the Symposium Express Call Center Database Backup, which of the following are requirements for the remote directory?

- a. The operating system must be Windows NT 4.0 or Windows 2000
- b. The computer where the remote directory exists must be located on the ELAN
- c. The Drive partition for the remote directory must be Windows NT File System (NTFS)
- d. The directory used for the backup must have enough space available to hold the backup files

Select Answer

4. What type of backup can a user with Customer Administrator access start by clicking to open the **System Administration** menu and then clicking on **Backup** on the Symposium Express Call Center client window?

- a. Scheduled database backup
- b. Unscheduled database backup
- c. Voice Services backup
- d. All of the above

reset

Symposium Express Call Center Full Backup

A Full Backup backs up the contents of all hard drives, including the registry and the database. You must have a Full Backup to restore the Symposium Express Call Center PVI server to the exact state that the server was in at the time the backup was performed. The Full Backup recovers the call center data after a catastrophic failure in the PVI server's disk subsystem. When performed in combination with a current database backup, a Full Backup can minimize data loss. The server must be off line to perform a Full Backup.

Nortel Networks recommends performing a Full Backup whenever the following tasks are performed:

- After installation and configuration of a new server
- Before and after a major conversion of the server, such as an upgrade from Release 3.0 to Release 4.2
- Before and after any major hardware upgrade, such as a disk expansion, BIOS upgrade, or platform migration



Tip: *A third-party backup utility is required to perform a Full Backup.*

The third-party backup software must meet the requirements listed below:

- The third-party backup software must not reduce the hard disk space available to Symposium Express Call Center and the Windows 2000 operating system below the minimum required.
- The installation or uninstallation of the third-party backup software must not impact or conflict with Symposium Express Call Center software. For example, it must not cause .DLL conflicts. If such conflicts are discovered, a rebuild of the server may be necessary.
- If the third-party backup software has its own database, it must not impact the Symposium Express Call Center database.
- The third-party backup software must not interfere with Symposium Express Call Center services in any way; for example, causing improper or out-of-sequence shutdowns.
- During run-time, the third-party backup software must not degrade the Symposium Express Call Center system beyond an average 50 percent CPU utilization.

Notes



- The third-party backup software must run manually. Do not schedule the third-party backup to run in automatic mode.
- If you are using a tape drive for your backups, the third-party backup system can use a dedicated tape drive, or it can share the tape drive used for Symposium Express Call Center database backups.
- If the third-party backup and the Symposium Express Call Center Database Backup each have separate dedicated tape drives, the tape drive used for the Database Backup must be configured with the device name Tape0.
- If the third-party backup and the Symposium Express Call Center Database Backup share a tape drive, the drive must meet the requirements of Symposium Express Call Center.
- For backups to a remote directory, the third-party backup must not interfere with the server ports used for network connections by Symposium Express Call Center.



Caution: *Services associated with the third-party backup must not run while the server is running.*



Caution: *Before putting Symposium Express Call Center in operation, you must perform comprehensive co-residency testing of the server and the third-party backup utility.*

Performing the Full Backup

When performing a full backup, you must perform the following steps in the order listed below:

1. Shut down the Symposium Express Call Center services using the Shutdown utility.
2. Stop the database services from running by using the Stop Sybase Services utility.
3. Perform the full backup using the third-party utility of your choice.
4. Start the database services using the Start Sybase Services utility.
5. Start the Symposium Express Call Center services using the Startup utility.

Notes



Windows 2000 Server Platform Recovery Disk

A Platform Recovery Disk saves both server and database configuration data in the following four text files:

- **MigInfo.txt**: This file contains all of the server setup configuration information.
- **dbdvc.txt**: This file contains information about the size and location of your database files.
- **dbseg.txt**: This file contains information about the data and log segments in your database.
- **rbackup.txt**: This file includes details about the user name, password, and path used when you perform a database backup to a remote directory. This is the information entered in the Network DB Backup Path utility.

An up-to-date Platform Recovery Disk must be available to recover server software or database files. Nortel Networks recommends that you create a new Platform Recovery Disk when any of the following tasks are performed:

- Expanded the database using the Database Expansion Utility
- Restored your database from a Database Backup
- Any time you have changed any of the following information on the server:
  - **Customer Information:** If you change your customer name or company name
  - **Keycode Information:** If you enter a new serial number and keycode when upgrading the server software
  - **M1/CSE 1000 Switch Information**: If you update switch information, such as the switch name, IP address, and customer number
  - **ELAN/CLAN IP Addresses**: If you update the ELAN or CLAN IP address of the server
  - **Voice Connection**: If you update the connection to the voice processing system (CallPilot or Meridian Mail)
  - **Site Name**: If you change the site name for Symposium Express Call Center

Notes



Creating and Updating the Platform Recovery Disk

You have already created a Platform Recovery Disk during the initial server application software installation procedure. This procedure is covered in the section "Platform Recovery Disk Creation" in the lesson titled "Installing the Server Software" of this Student Guide.



Tip: *You can use a shared directory on a remote network computer to save the Platform Recovery Disk information. To use a remote computer, you must first map the directory on the network computer to a network drive on your server. The name of the remote directory into which you save the Platform Recovery Disk must not contain any spaces. Spaces in the remote directory name will cause errors.*

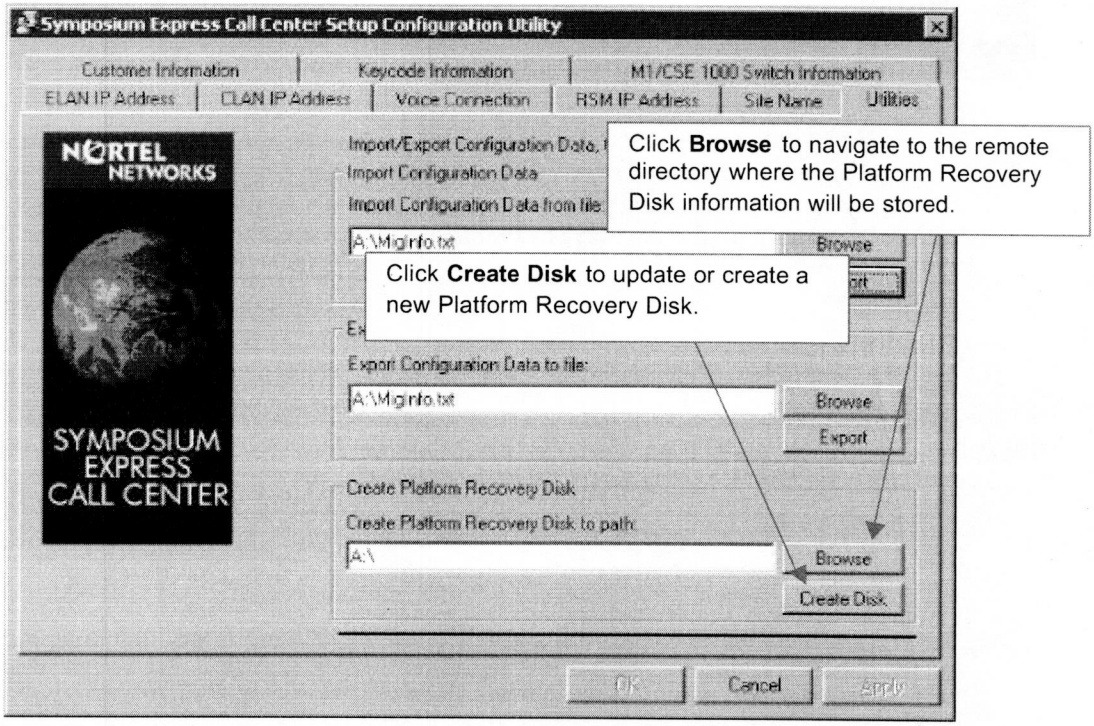
Follow the steps below to update or create a new Platform Recovery Disk:

- Log on to the server as **NGenSys**.
- From the Windows **Start** menu, click on **Programs**, **Symposium Express Call Center**, and then **Server Setup Configuration**. The Symposium Express Call Center Setup Configuration Utility window opens.
- In the Create Platform Recovery Disk section, click **Create Disk** and follow the instructions provided with the utility.

Notes



Figure 39: The Symposium Express Call Center Setup Configuration Utility Window



Notes





Practice

Backup and Restore Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

5. What files does a Full Backup performed with a third-party backup utility preserve?

   a. A backup copy of the database that contains historical data, reports, and call center configuration information stored on the server

   b. A backup copy of the total content of all hard drives, including the registry

   c. A backup copy of all call treatments recorded on the Voice Services Card ATA drive

   d. All of the above

Select Answer

6. With Symposium Express Call Center, a Full Backup of the contents of all hard drives, including the registry and the database is performed with the server online and the call center operational.

   a. True

   b. False

reset

Select Answer

7. Which of the four text files that are saved on the Platform Recovery Disk contains all of the server setup configuration information?

- a. MigInfo.txt
- b. dbdvc.txt
- c. dbseg.txt
- d. rbackup.txt

reset

Restoring Symposium Express Call Center Data

Symposium Express Call Center offers five different levels of restoring lost or corrupt data:

- **Full system recovery:** This procedure provides the capability to recover from a system failure, such as file corruption that affects more than the Symposium Express Call Center database or a hardware failure in one or more server hard drives. This procedure requires a current Platform Recovery Disk and a recent Database Backup. If you have implemented the Voice Services feature, a backup of the Voice Services database and configuration data is also required.
- **Recovery of system setup configuration**: This procedure provides the capability to recover your server setup configuration. You will perform this procedure if you suspect that your server's configuration has been corrupted. This procedure requires an up-to-date copy of your system's configuration data file, MigInfo.txt. This file is created when you create a Platform Recovery Disk or when you use the Export Configuration Data utility in the Server Setup Configuration Utility.
- **Recovery of the database contents**: This procedure provides the capability to recover data in your Symposium Express Call Center database using the Database Restore utility. You will perform this procedure if you suspect that data in your call center database is corrupt. You can perform the database restore from either a tape backup or from a remote directory backup.
- **Reinstallation of Sybase ASE 12 and database software**: This procedure provides the capability to uninstall and then reinstall the Sybase ASE 12 database software and configuration. You will perform this procedure if you suspect that the Sybase ASE 12 server configuration or software is unstable. The Database Backup and the Platform Recovery Disk are required to perform this procedure. If you have a co-resident client, you must export your client data and uninstall the client software before starting the reinstallation of the server. Once the server is reinstalled, you must reinstall the co-resident client software and import your client data.

Notes



- **Reinstallation of the server software** : This procedure provides the capability to uninstall and then reinstall the Symposium Express Call Center server application software. You will perform this procedure if you suspect that the server software is corrupted. This procedure requires that you also restore your server's setup configuration using a Platform Recovery Disk, because all system configuration details are lost when you uninstall the software. If you have a co-resident client, you must export your client data and uninstall the client software before starting the reinstallation of the server. Once the server is reinstalled, you must reinstall the co-resident client software and import your client data. If you have implemented the Voice Services feature, a backup of the Voice Services database and configuration data is also required.

Some recovery procedures, such as restoring the database or importing database or configuration data from a Platform Recovery Disk, are used in more than one of the recovery scenarios listed above. These procedures are covered in detail below.

Restoring from a Database Backup



Caution: *When restoring the database on the Symposium Express Call Center, make sure the Database Backup you use was created from the same server running the same software release. If you attempt to restore a database backup created from a server running a different Symposium Express Call Center software release, the database restore will finish, but the system will not work properly. Ensure that each database backup is labeled properly. The label should include the software release of Symposium Express Call Center.*



Tip: *The restore process causes the connection between the client PC and server to be lost, and the services on the server to be shut down. After the restore process is finished, restart the system, and reconnect the client PC.*



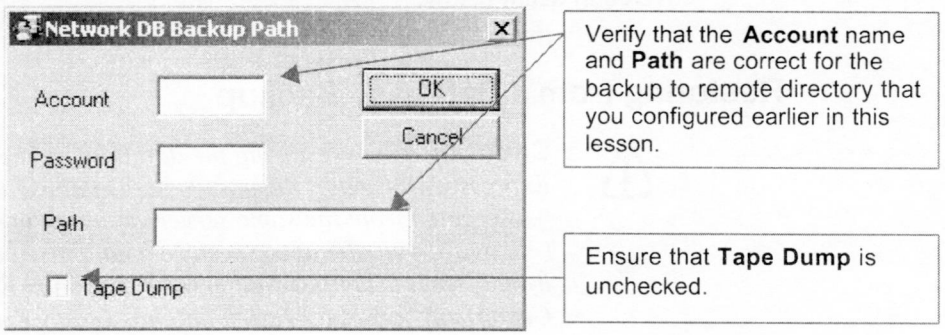
Tip: *If you applied any PEPs or SUs since you created the Database Backup used for the restore, you must uninstall and then reinstall them to ensure that your restored database is properly updated. If the Database Backup was created after you applied the PEPs or SUs, you do not need to uninstall and reinstall them.*

Prepare the Server

Follow the steps below to prepare the Symposium Express Call Center server PC for the restoration of database files from the Database Backup:

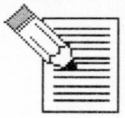
- Ensure that you have a current Database Backup with the files stored either on a tape or in a remote directory on a network computer.
- Log on to the server using the **NGenSys** user ID and password.
- If you are restoring from a remote directory, check the Network DB Backup Path utility and ensure that the path to the remote directory is set correctly.
  - From the Windows **Start** menu, click on **Programs**, **Symposium Express Call Center**, and then **Network DB Backup Path**. The Network DB Backup Path dialog box appears.

Figure 40: The Network DB Backup Path Dialog Box



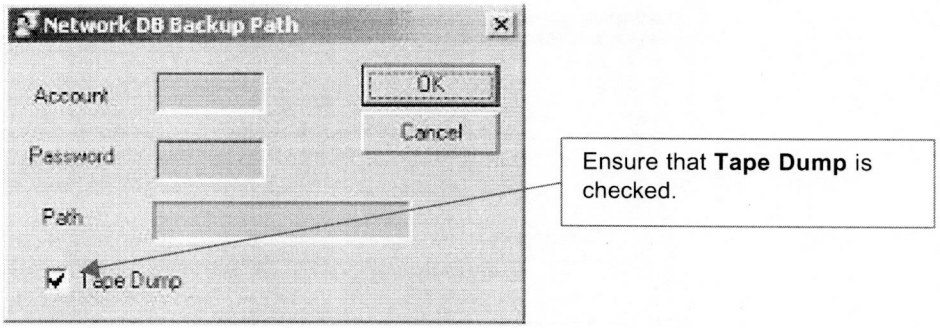
  - Ensure that **Tape Dump** is unchecked
  - Verify that the **Account** data box contains the user name that you created for your Database Backup to a remote directory.
  - Verify that the **Path** data box contains the correct path information to the remote directory where the Database Backup files are stored on the network computer. For security reasons, you cannot see the password.
  - If you did not make changes to this window, click **Cancel** to close the window.
  - If you made changes to this window, click **OK** to save your changes and close the window.

Notes



- If you are restoring from a Database Backup tape, insert the tape in the tape drive and then check the Network DB Backup Path utility and ensure that the Tape Dump checkbox is checked.
  - From the Windows **Start** menu, click on **Programs**, **Symposium Express Call Center**, and then **Network DB Backup Path**. The Network DB Backup Path dialog box appears.

Figure 41: The Network DB Backup Path Dialog Box



  - Ensure that **Tape Dump** is unchecked
  - The **Account**, **Password**, and **Path** data boxes are grayed out.
  - If you did not make changes to this window, click **Cancel** to close the window.
  - If you made changes to this window, click **OK** to save your changes and close the window.

Notes

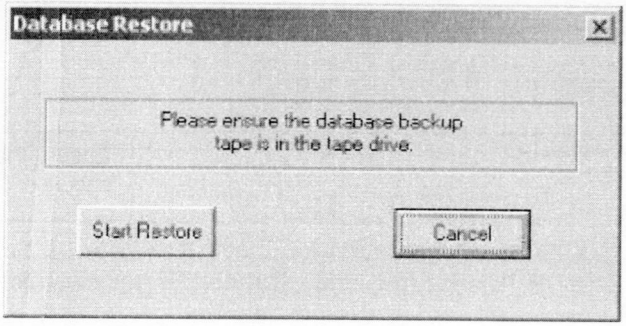


Restore from Database Backup Tape

Follow the steps below to restore the database from the backup tape:

- From the Windows **Start** menu, click on **Programs**, **Symposium Express Call Center**, **Database Restore**. The Database Restore dialog box appears.

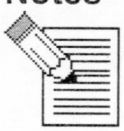
Figure 42: The Database Restore Dialog Box



- Insert the tape containing the database backup into the tape drive.
- When the tape in the drive stops moving, click **Start Restore** to begin the database restore process.

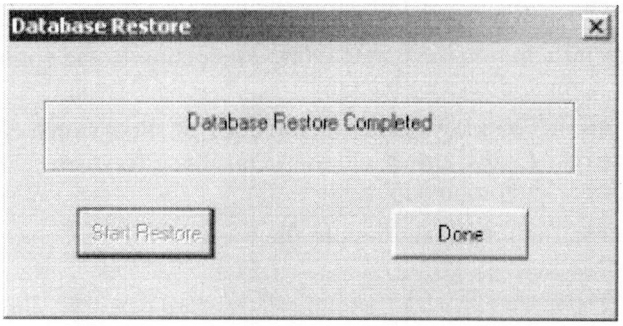
Note: The system first shuts down the Symposium Express Call Center services that you have installed. Then the database restore process begins. This can take at least one to three hours, depending on the amount of data. During this time, the Database Restore window remains visible and displays numerous status messages about the progress of the restore.

Notes



- Wait until the following message appears:

Figure 43: Database Restore Completed on the Database Restore Dialog Box



Note: A log file is created with the following path name after the database restore is completed:

D:\Nortel\data\backup\RestoreLogs\restore.log

- Click **Done**. The following dialog box appears:

Figure 44: Please Reboot the Server INFO Dialog Box



- Eject the backup tape from the tape drive.
- Click **OK** to exit the Database Restore utility.

Caution: *You must wait for the Database Restore window to disappear. The system must complete its processes and close this window. It may seem like there is no activity and this process can take up to two minutes to complete.*

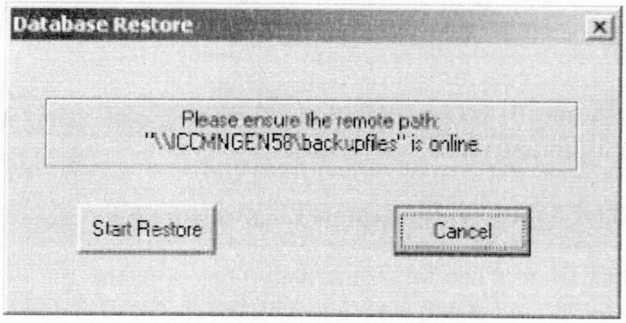
Notes

Restore the Database from Remote Directory

Follow the steps below to restore the database from a remote directory:

- Ensure that you have a network connection to the computer containing the remote directory backup.
- From the Windows **Start** menu, click on **Programs**, **Symposium Express Call Center**, and then **Database Restore**. The Database Restore dialog box appears.

Figure 45: The Database Restore Dialog Box



- Verify that the path displayed on the Database Restore dialog box is correct.
- Click **Start Restore** to begin the database restore process.

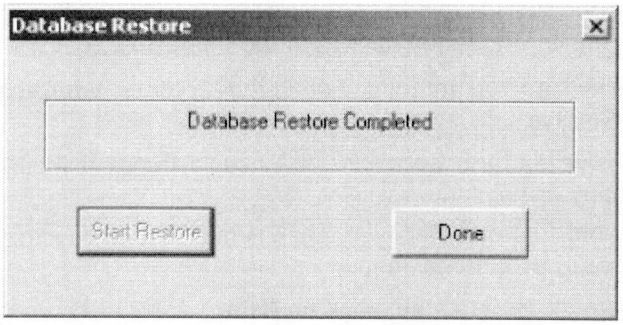
Note: The system first shuts down the Symposium Express Call Center services that you have installed. Then the database restore process begins. This can take at least one to three hours, depending on the amount of data. During this time, the Database Restore window remains visible and displays numerous status messages about the progress of the restore.

Notes



- Wait until the following message appears:

Figure 46: Database Restore Completed on the Database Restore Dialog Box

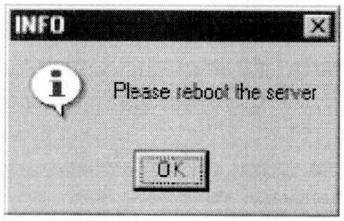


Note: A log file is created with the following path name after the database restore is completed:

D:\Nortel\data\backup\RestoreLogs\restore.log

- Click **Done**. The following dialog box appears:

Figure 47: Please Reboot the Server INFO Dialog Box



- Click **OK** to exit the Database Restore utility.

Caution: *You must wait for the Database Restore window to disappear. The system must complete its processes and close this window. It may seem like there is no activity and this process can take up to 2 minutes to complete.*

Notes

Import Configuration Data from the Platform Recovery Disk

Follow the steps below to configure your server's software and database by importing configuration data from the Platform Recovery Disk:

- Make sure you are logged on to the server as **Administrator** or **NGenSys**.
- If your Platform Recovery Disk is on a floppy disk, insert it into the floppy drive.
- If your Platform Recovery Disk is in a remote directory, map a network drive to the remote directory.
- From the **Start** menu, click on **Run**.
- If your Platform Recovery Disk is on a floppy disk, type

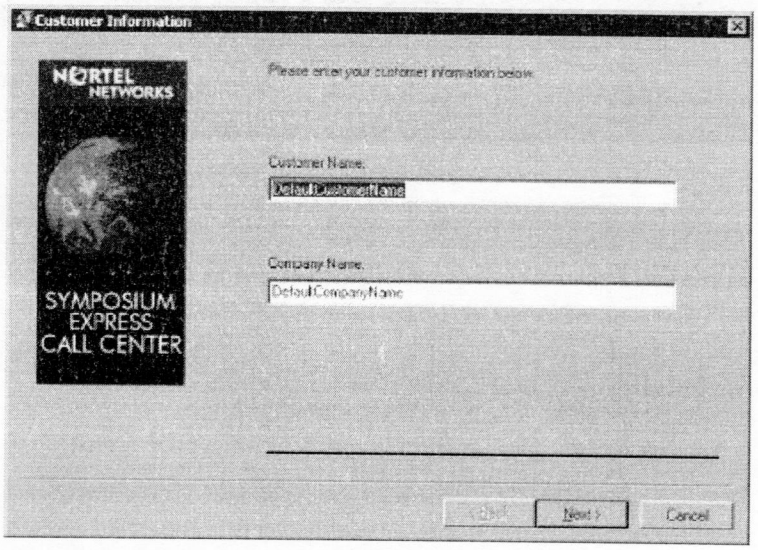
  d:\nortel\iccm\bin\svrconfig_secc.exe -i -w a:\MigInfo.txt
- If your Platform Recovery Disk is in a remote directory, type

  d:\nortel\iccm\bin\svrconfig_secc.exe -i -w x:\MigInfo.txt

  where *x* is the letter of the mapped remote directory.
- Click **OK**. The Customer Information window opens.

Note: This is the first of several windows in the Setup Configuration Utility where you have entered system configuration data. Because you are importing data from your Platform Recovery Disk, each window in this utility is already filled with the original system's configuration data.

Figure 48: The Setup Configuration Utility Customer Information Window

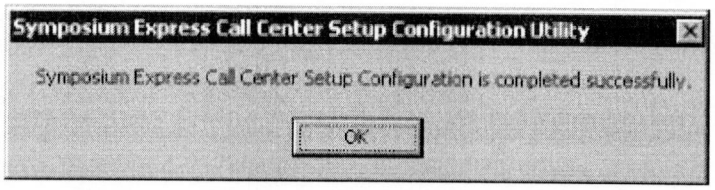


- Check the information in the Customer Information window, and then click **Next** to move to the next window.
- Check the information in each subsequent window, and then click **Next** to move through the configuration utility.
- When you reach the Site Name window, check the data, and then click **Finish**. The Server Setup Configuration Utility window appears. Each tab represents a window that you just viewed.
- When you are satisfied with the configuration details, click **OK**. A window appears asking you to verify your keycode information.
- Check that the features listed match the product you purchased, and then do one of the following:
  - If the information is not correct, you may have entered the keycode and serial number incorrectly. Click **No** and then Click the **Keycode Information** tab and make any necessary changes to your entries. Click **OK**, and return to the keycode information window.
  - If the information is correct, click **Yes** to continue.

Note: The Server Configuration Utility configures your server using the data you entered. It displays a status of each stage that the configuration passes through. This process can take 20 to 30 minutes to complete, depending on your system's CPU and database size. Do not close any windows during the configuration.

- Wait until you see the following message:

Figure 49: Server Configuration Utility Completed Successfully Message

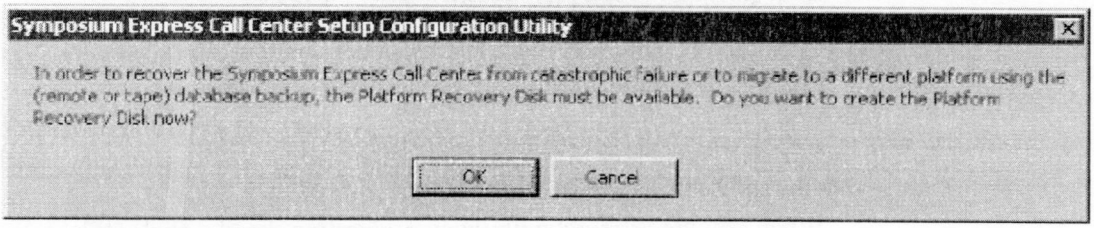


- Click **OK**. The following message appears:

Notes

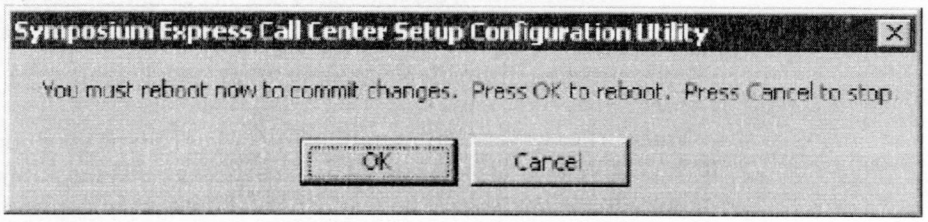


Figure 50: The Server Configuration Utility Platform Recovery Disk Message



- Click **Cancel** if you do not want to create a new Platform Recovery Disk at this time or click **OK** to enter the Migration utility to create a new Platform Recovery Disk.
- If you click **Cancel**, the following message will appear:

Figure 51: Setup Configuration Utilities Reboot Message



- Click **OK** to reboot the server. When the server restarts after the installation, log on as **NGenSys**.

Note: It may take several minutes as the services start for the desktop to appear.

The MAS Trace Window opens automatically. The server installation and database configuration is complete. The Symposium Express Call Center software is now ready for use.

Notes





Practice

Backup and Restore Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

8. When restoring data in the Symposium Express Call Center, which restore function provides the capability to recover data in your Symposium Express Call Center database using the Database Restore utility?

- a. Full system recovery
- b. Recovery of system setup configuration
- c. Recovery of the database contents
- d. Reinstallation of Sybase ASE 12 and database software
- e. Reinstallation of the server software

Select Answer

9. When preparing the Symposium Express Call Center server PC for the restoration of database files from the Database Backup, if you are restoring from a remote directory, what must be verified on the Network DB Backup Path utility?

- a. The path to the remote directory is set correctly
- b. The Tape Dump checkbox is checked
- c. The Tape Dump checkbox is unchecked
- d. The Account data box contains the user name created for the remote directory

reset

Voice Services Backup and Restore



Tip: *Voice Services is a keycode-enabled feature. If you do not have this feature provisioned, you cannot perform this backup.*

The Voice Services Backup/Restore application generates a .CSV backup file of the VS database. Important configuration details from the system registry, such as the card name and IP address are appended to the database backup file. With both the VS database and registry information backed up to a single file, the migration, upgrade and VS card restoration processes are simplified.

There are two steps to a complete Voice Services card backup:

- Backup the call treatments recorded on the Voice Services Card ATA hard drive card.
- Backup the Voice Services database.

There are two different ways to Backup the call treatments recorded on the Voice Services Card ATA hard drive card:

- Using the File Transfer Protocol (FTP)
- Using a computer with a PCMCIA card drive

Perform a full Voice Services backup on the following occasions:

- Whenever you perform a backup on the Symposium Express Call Center
- Whenever new prompts are created
- Whenever changes are made to the treatment configuration such as changes to an existing Voice Menu
- Whenever Voice Services ports are added, removed, or changed
- Whenever changes are made to the Voice Services configuration

Notes



Caution: *It is critical that the ATA hard drive card backup and the Voice Services database backup are made at the same time and are stored together. If you attempt to restore from a Voice Services backup and the ATA hard drive card backup and the Voice Services database backup are mismatched, the restore will fail and Voice Services will not function.*

Caution: *Voice Services backup information cannot be stored on a DAT tape. Ensure that your backup files are stored in a secure location.*

Tip: *The procedure for performing a backup of the Voice Services ATA hard drive card using the WS_FTP Pro file transfer application is covered in the Symposium Express Call Center Call Center Management Guide, Performing Backups, Performing Voice Services Backups.*

Backup the Voice Service ATA Hard Drive Using FTP

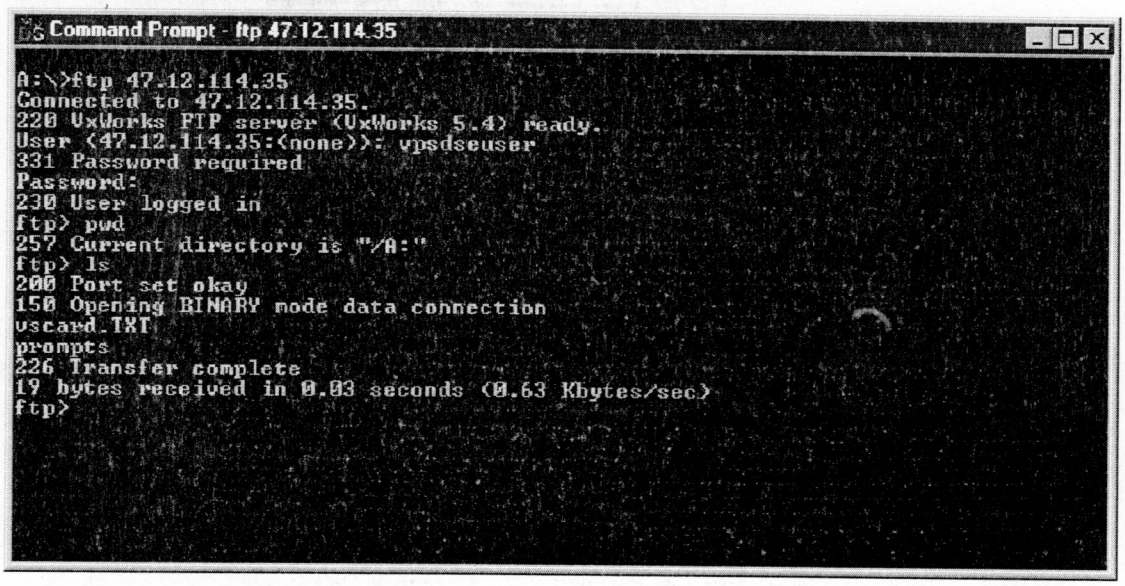
Although the *Symposium Express Call Center Call Center Management Guide* describes the procedure to perform the Voice Services ATA hard drive card backup using the WS_FTP-Pro application, this software may not be available on the server PC in the field. The following procedure teaches how to use the FTP application installed with the Windows 2000 Server operating system on the Symposium Express Call Center server PC to backup the files on the Voice Services ATA hard drive card.

Notes

Follow the steps below to backup the Voice Service ATA hard drive using the File Transfer Protocol on the Symposium Express Call Center server PC:

- From the **Start** menu, select **Programs** and then **MS DOS Prompt**. The MS DOS window will open.
- At the DOS prompt, enter **A:<cr>** to change to the A:\ drive.
- At the A:\> prompt, enter **ftp 47. 12.114.35** or at the ftp> prompt, enter **open 47. 12.114.35** (use the IP address of your VS card) to open a FTP connection to the VS card. The FTP program prompts you to enter a user name.
- Enter **vpsdseuser** (the user name for the VS card). The FTP program prompts you to enter the password.
- Enter **welcome2vp** (the password for the VS card). The FTP program responds, "User logged in".
- At the ftp> prompt, enter **pwd** to print the working directory.
- At the ftp> prompt, enter **ls** to list the files in the working directory.

Figure 52: The Current Directory and List of Files on the Voice Services Card

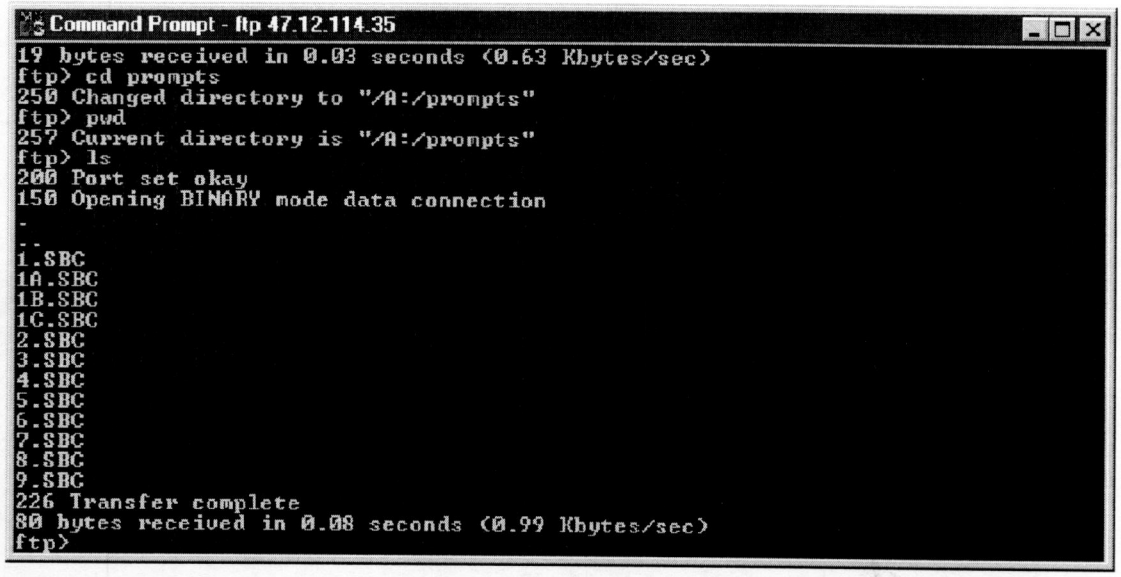


Notes



- At the ftp> prompt, enter **cd prompts** to change to the prompts directory.
- At the ftp> prompt, enter **pwd** to verify that the working directory is now prompts.
- At the ftp> prompt, enter **ls** to list call treatment files in the prompts directory. All call treatment files have an .sbc file extension.

Figure 53: The Call Treatment Files Listed in the prompts Directory on the Voice Services ATA Hard Drive Card



Notes



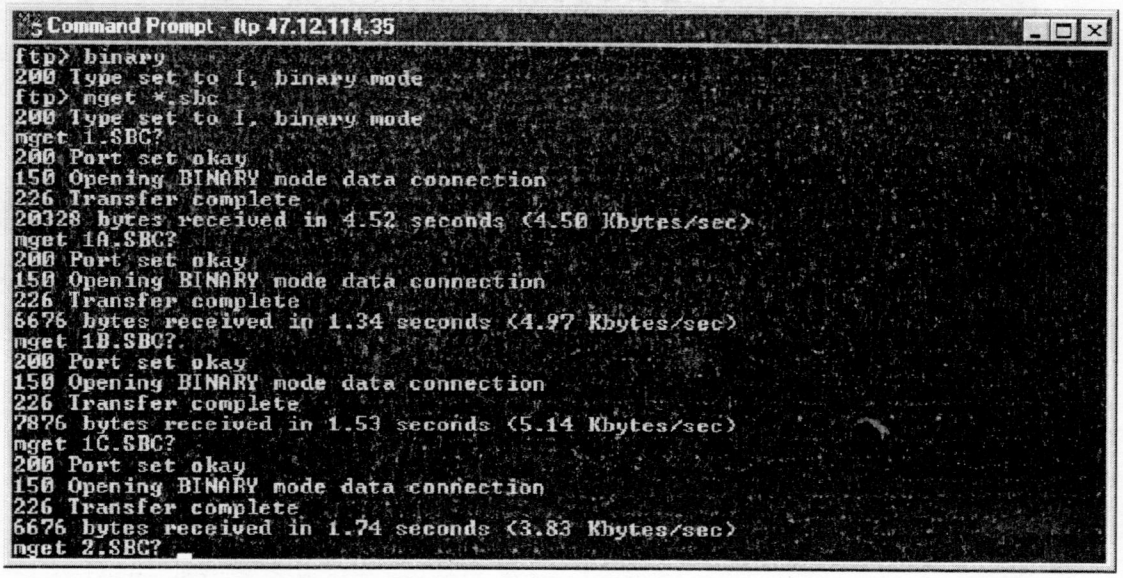
- At the ftp> prompt, enter **binary** to change the file transfer mode to binary format.



Caution *You must set the file transfer mode to binary. Failure to follow this step will cause the Voice Services ATA hard drive card restore to fail.*

- At the ftp> prompt, enter **mget *.sbc** to copy all call treatment files in the prompts directory to the A:\ drive of the server PC. For each file, the FTP program asks "**mget file.SBC?**" You must press the **Enter** key on your keyboard or enter **Y** for yes for each file that you want to transfer.

Figure 54: Transferring .SBC Files from the Voice Services ATA Hard Drive Card to the A:\ Drive on the Server PC

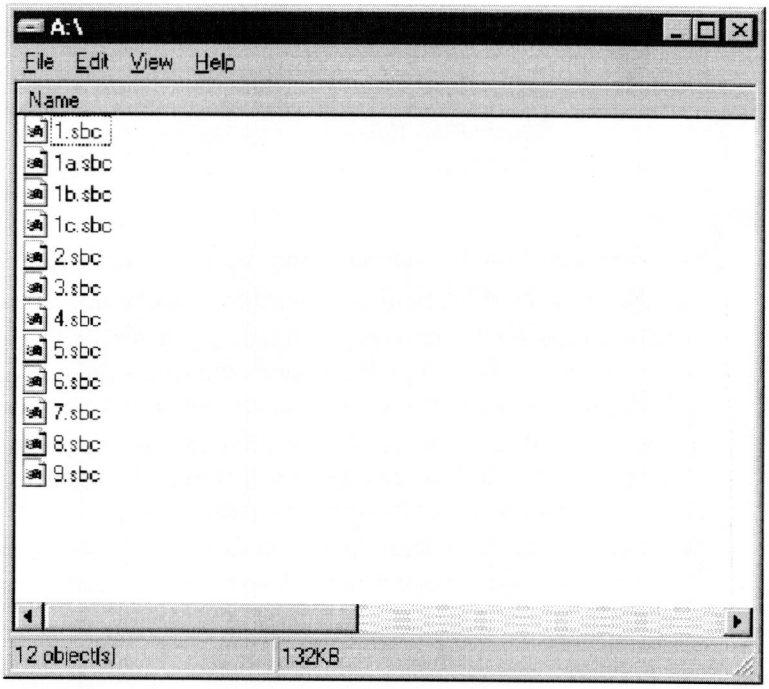


Notes



- From the desktop, click on **My Computer** and then the **A:\ drive** to verify the file transfer.

Figure 55: The Voice Services Card Call Treatment Files on the A:\ Drive



- Remove the floppy disk from the A:\ drive, label the disk, and store it in a secure location with the disk from the Voice Services card database backup.
- At the ftp> prompt, enter **quit** to close the FTP connection and end the FTP session.
- Close the Command Prompt window.

Notes



Voice Service ATA Hard Drive Card Backup Using a Computer with a PCMCIA Drive



Tip: *This procedure assumes that you are using the ATA hard drive card in the faceplate slot (drive A:\) on the Voice Services card. If you are using the B:\ drive, you will have to disable the Voice Services card and remove it from your Meridian 1 switch.*

- Shut down the VS service using the Voice Services monitor.
- Remove the ATA hard drive card from the Voice Services card.
- Insert the ATA hard drive card into the PCMCIA drive on your computer. The card will appear as the next available drive in Windows Explorer and can be accessed as any other drive on your PC.
- Copy all files on the ATA hard drive card to the backup file location. Ensure that all files are copied and stored in a secure location with the disk from the Voice Services database backup.
- Remove the ATA hard drive card from the PCMCIA drive on your computer and replace it in the Voice Services card.
- Restart the VS service.

Notes

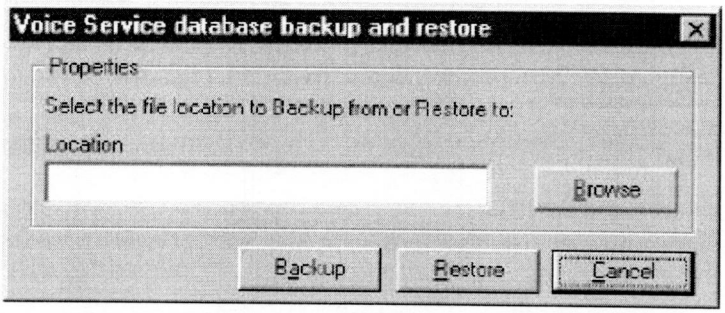


Voice Services Database Backup

Tip: *Nortel Networks recommends that you use two separate floppy disks when you backup the Voice Services database. This will provide additional backup in the case of a disk failure. Nortel Networks also recommends that you save a copy of the backup to an appropriate area of the server hard disk for quick recovery if only Voice Services fail.*

- Log on to the server with the user ID **NGenSys**.
- From the **Start** menu, click on **Programs**, **Symposium Express Call Center**, **Voice Services**, and then **Database backup-restore**. The Voice Service database backup and restore window opens.

Figure 56: The Voice Service Database Backup and Restore Window



- Insert the floppy disk into the A:\ drive.

Tip: *The Voice Service database backup file is stored as a comma separated value (.csv) file and it is unlikely that it will exceed the available space on a single floppy disk.*

- Click on the **Browse** button and navigate to the location of the floppy disk.
- Click the **Backup** button to start the backup procedure.
- Label the disk with the following information:
  - Date
  - Version
  - Customer Name
  - Server Name

Restoring from a Voice Services Backup

Follow the steps below to restore from a Voice Services backup:



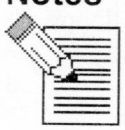
Tip: *To perform the Voice Services Restore, you must restore both the ATA hard drive card and the Voice Services database.*

Restore the Voice Service ATA Hard Drive Using FTP

The following procedure teaches how to use the FTP application installed with the Windows NT 4.0 Server operating system on the Symposium Express Call Center server PC to restore the files on the Voice Services ATA hard drive card:

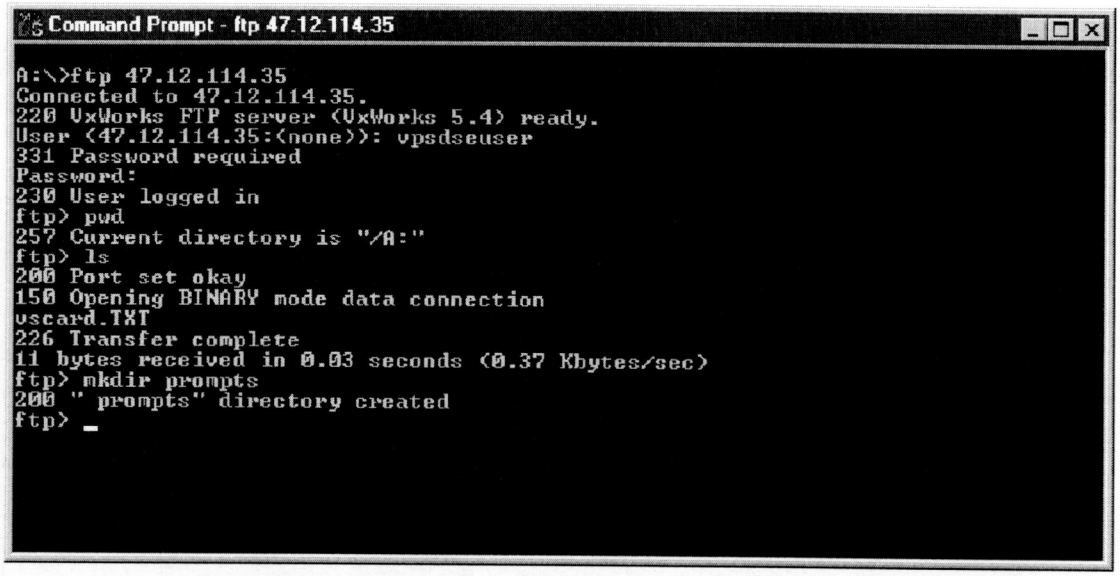
- From the **Start** menu, select **Programs** and then **MS DOS Prompt**. The MS DOS window will open.
- At the DOS prompt, enter **A:<cr>** to change to the A:\ drive.
- At the A:\> prompt, enter **ftp 47. 12.114.35** or at the ftp> prompt, enter **open 47. 12.114.35** (use the IP address of your VS card) to open a FTP connection to the VS card. The FTP program prompts you to enter a user name.
- Enter **vpsdseuser** (the user name for the VS card). The FTP program prompts you to enter the password.
- Enter **welcome2vp** (the password for the VS card). The FTP program responds, "User logged in".
- At the ftp> prompt, enter **pwd** to print the working directory.
- At the ftp> prompt, enter **ls** to list the files in the working directory.

Notes



- At the ftp> prompt, enter **mkdir prompts** to create a file named "prompts" on the ATA hard drive card.

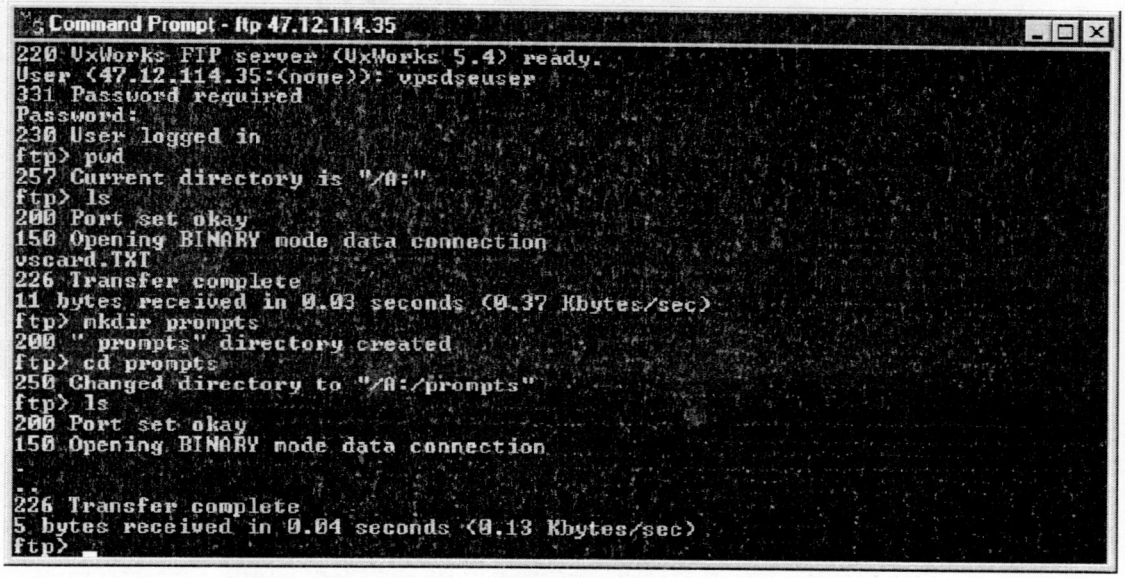
Figure 57: Creating the "prompts" Directory on the Voice Services ATA Hard Drive Card



Notes

- At the ftp> prompt, enter **cd prompts** to change to the prompts directory that you just created.
- At the ftp> prompt, enter **pwd** to verify that the working directory is now prompts.
- At the ftp> prompt, enter **ls** to list the files in the prompts directory. The directory should be empty.

Figure 58: Verifying that the "prompts Directory on the Voice Services ATA Hard Drive Card is Empty



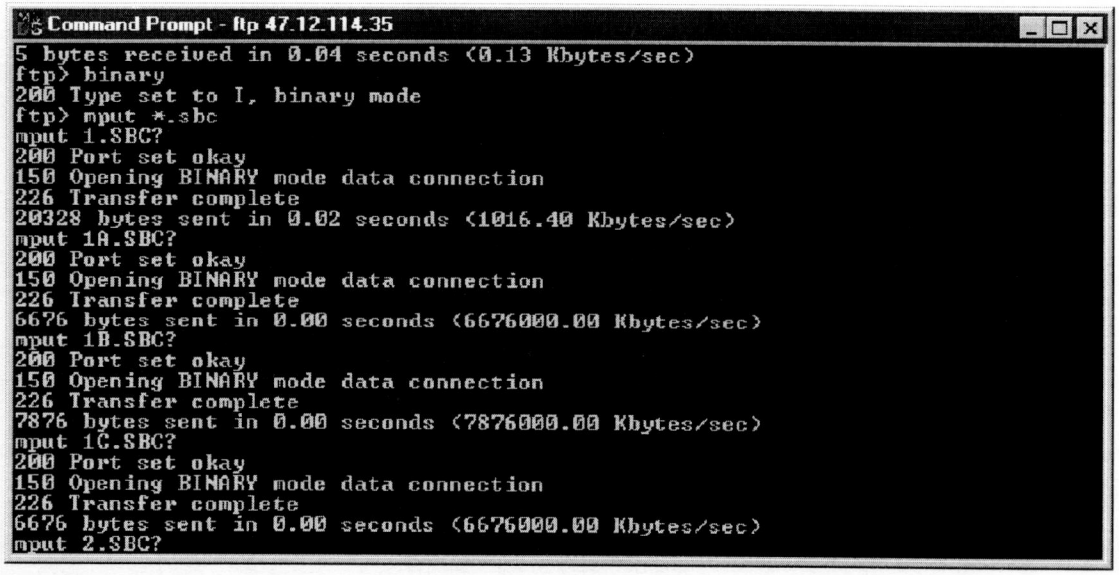
- At the ftp> prompt, enter **binary** to change the file transfer mode to binary format.

Caution *You must set the file transfer mode to binary. Failure to follow this step will cause the Voice Services ATA hard drive card restore to fail.*

Notes

- At the ftp> prompt, enter **mput *.sbc** to copy all call treatment files from the A:\ drive on the server PC to the prompts directory on the ATA hard drive card. For each file, the FTP program asks "**mput file.SBC?**" You must press the **Enter** key on your keyboard or enter **Y** for yes for each file that you want to transfer.

Figure 59: Transferring .SBC Files from the A:\ Drive on the Server PC to the Voice Services ATA Hard Drive Card

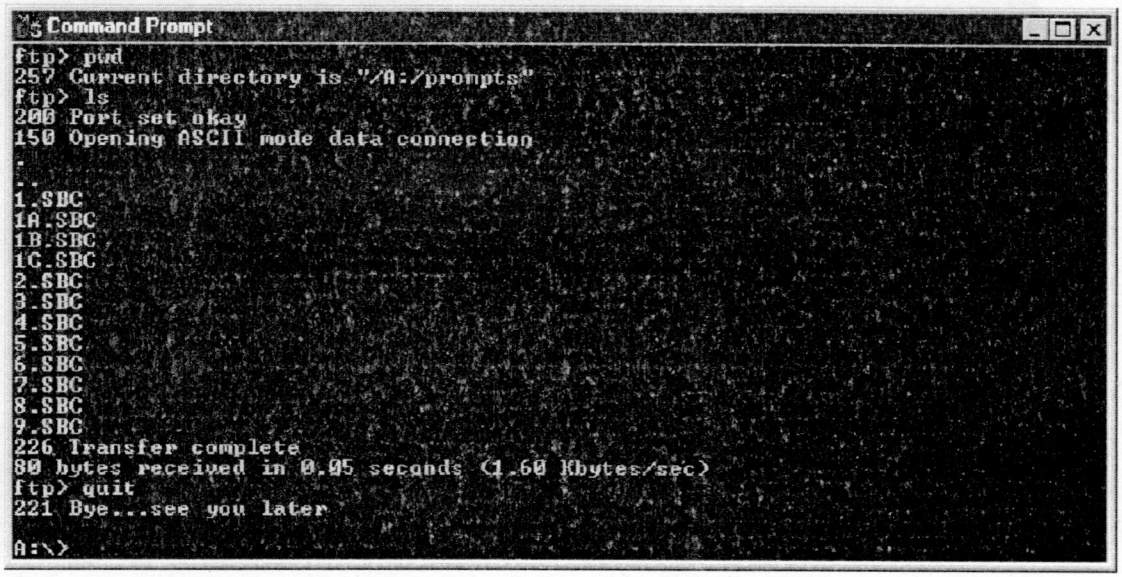


Notes



- At the ftp> prompt, enter **pwd** to verify that the working directory is now prompts.
- At the ftp> prompt, enter **ls** to list the files in the prompts directory. The directory should contain all of the call treatment .sbc files from the A:\ drive on the server PC.

Figure 60: The Call Treatment Files Listed in the prompts Directory on the Voice Services ATA Hard Drive Card



- At the ftp> prompt, enter **quit** to close the FTP connection and end the FTP session.
- Close the Command Prompt window.

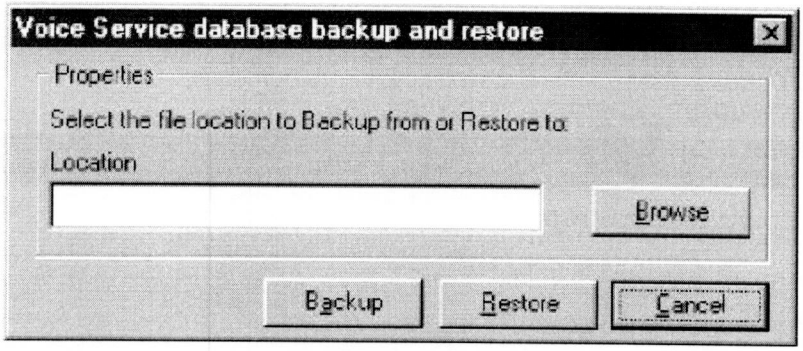
Notes



Perform a Voice Services Database Restore

- Log on to the server with the user ID **ngensys**.
- From the **Start** menu, click on **Programs**, **Symposium Express Call Center**, **Voice Services**, and then **Database backup-restore**. The Voice Service database backup and restore window opens.

Figure 61: The Voice Service Database Backup and Restore Window



- Insert the Voice Service Database backup floppy disk into the A:\ drive.
- Click on the **Browse** button and navigate to the location of the floppy disk.
- Click the **Restore** button to start the restore procedure.

Notes



Backup Tapes

A backup tape may only be used for one type of backup, regardless of the space available on the tape. Tapes should be rotated and stored at an off-site location. Do not keep a tape in the tape drive for more than one or two days. If the same tape is used for several consecutive backups and that tape is damaged, no other backup tape will be available to restore your lost data. Also, the consistent reuse of the same tape will accelerate wear on the tape. This can cause a tape to require replacement earlier than the normal life span of approximately 2,000 uses.



Tip: *Store your tapes off site for as long as possible before reusing them. Archive tapes for a minimum of two weeks.*

Notes





Practice

Backup and Restore Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice pages that follow.

Select Answer

10. When performing the Voice Services ATA hard drive card backup, what files are you saving?

- a. The VS Card firmware files
- b. The VS Card VxWorks Shell files
- c. The Voice Services database files
- d. The Call Treatments stored on the VS Card ATA hard drive

Select Answer

11. What are the two methods that you can use to back up the call treatments recorded on the Voice Services card ATA hard drive card?

- a. Use the File Transfer Protocol (FTP) to copy the files on the ATA hard drive card
- b. Use the Voice Services Backup/Restore application to copy the files on the ATA hard drive card
- c. Use a computer with a PCMCIA card drive to copy the files on the ATA hard drive card
- d. Use the Windows 2000 System Tools Backup utility on the Symposium Express Call Center server PC to copy the files on the ATA hard drive card

reset

Select Answer

12. What two steps must be performed to restore the Voice Services card after a Voice Services card backup?

- a. Restore the Voice Services database
- b. Restore the Symposium Express Call Center database files
- c. Restore the call treatment files on the ATA hard drive card
- d. Restore the Windows 2000 Server registry files and system information

reset



Answers to Practice

Backup and Restore Questions

Check your answers to the practice.

1. What are the different types of backup available with Symposium Express Call Center?

   a. Full Backups using a third-party disk imaging utility

   b. Unscheduled or Scheduled Database Backup

   c. Windows 2000 Server Platform Recovery Disk

   d. Voice Services backup

2. What level of system access is required to schedule a Database Backup from the system tree?

   a. Windows 2000 Administrator

   b. System Administrator

   c. Customer Administrator

   d. Senior Supervisor

3. When configuring a remote directory for the Symposium Express Call Center Database Backup, which of the following are requirements for the remote directory?

   a. The operating system must be Windows NT 4.0 or Windows 2000

   b. The computer where the remote directory exists must be located on the ELAN

   c. The Drive partition for the remote directory must be Windows NT File System (NTFS)

   d. The directory used for the backup must have enough space available to hold the backup files

4. What type of backup can a user with Customer Administrator access start by clicking to open the **System Administration** menu and then clicking on **Backup** on the Symposium Express Call Center client window?

   a. Scheduled Database Backup

   b. Unscheduled Database Backup

   c. Voice Services backup

   d. All of the above

5. What files does a Full Backup performed with a third-party backup utility preserve?

   a. A backup copy of the database that contains historical data, reports, and call center configuration information stored on the server

   b. A backup copy of the total content of all hard drives, including the registry

   c. A backup copy of all call treatments recorded on the Voice Services Card ATA drive

   d. All of the above

6. With Symposium Express Call Center, a Full Backup of the contents of all hard drives, including the registry and the database is performed with the server online and the call center operational.

   a. True

   b. False

7. Which of the four text files that are saved on the Platform Recovery Disk contains all of the server setup configuration information?

   a. MigInfo.txt

   b. dbdvc.txt

   c. dbseg.txt

   d. rbackup.txt

8. When restoring data in the Symposium Express Call Center, which restore function provides the capability to recover data in your Symposium Express Call Center database using the Database Restore utility?

   a. Full system recovery

   b. Recovery of system setup configuration

   c. Recovery of the database contents

   d. Reinstallation of Sybase ASE 12 and database software

   e. Reinstallation of the server software

9. When preparing the Symposium Express Call Center server PC for the restoration of database files from the Database Backup, if you are restoring from a remote directory, what must be verified on the Network DB Backup Path utility?

   a. The path to the remote directory is set correctly

   b. The Tape Dump checkbox is checked

   c. The Tape Dump checkbox is unchecked

   d. The Account data box contains the user name created for the remote directory

10. When performing the Voice Services ATA hard drive card backup, what files are you saving?

    a. The VS Card firmware files

    b. The VS Card VxWorks Shell files

    c. The Voice Services database files

    d. The Call Treatments stored on the VS Card ATA hard drive

11. What are the two methods that you can use to back up the call treatments recorded on the Voice Services card ATA hard drive card?

    a. Use the File Transfer Protocol (FTP) to copy the files on the ATA hard drive card

    b. Use the Voice Services Backup/Restore application to copy the files on the ATA hard drive card

    c. Use a computer with a PCMCIA card drive to copy the files on the ATA hard drive card

    d. Use the Windows 2000 System Tools Backup utility on the Symposium Express Call Center server PC to copy the files on the ATA hard drive card

12. What two steps must be performed to restore the Voice Services card after a Voice Services card backup?

    a. Restore the Voice Services database

    b. Restore the Symposium Express Call Center database files

    c. Restore the call treatment files on the ATA hard drive card

    d. Restore the Windows 2000 Server registry files and system information



Skill Check 1

Symposium Express Call Center Backup and Restore

Use your notes, lesson material, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide* as reference materials to assist in performing the tasks below.

1. Create a new scheduled backup of the Symposium Express Call Center database using the Backup Scheduler under Server backup and System Administration on the system tree.

2. Remove backup from the Backup Scheduler.

3. Perform an unscheduled partial backup of the Symposium Express Call Center database by selecting Backup from the System Administration drop-down menu in the Administration window.

4. Check log file.

5. View the procedure that you would use to restore the Symposium Express Call Center database from a tape that was created from a partial backup.



Skill Check 1 Feedback

Symposium Express Call Center Backup and Restore

You have successfully completed the practice when you have scheduled a database backup using the Backup Scheduler, created a backup tape from an unscheduled backup of the Symposium Express Call Center database, and viewed the procedures that you would use to restore the database from the backup tape that you created.

Step	Symposium Express Call Center Backup and Restore	V
1.	Create a new scheduled backup of the Symposium Express Call Center database using the Backup Scheduler under Server backup and System Administration on the system tree. a. Make sure the services on your server are up b. Make sure your server is set up to back up either to a tape or to a remote directory c. If you are backing up your database to a tape, place a tape in the tape drive of the server d. Log on to the client using the system administrator user ID e. In the Administration window, from the System Administration drop-down menu, choose **Advanced Functions** f. Double-click **System Administration** g. Double-click **Server backup** h. Double-click **Backup scheduler** i. Click the **New Schedule** icon j. In the Device Name drop-down box, ensure that **PrimaryServerTape** is selected k. Click the **Schedule** tab l. Select the **type of schedule** (daily, weekly, monthly, yearly, or specific date) m. Select the **month**, **day**, or **date** on which the backup should run n. In the Start box, select the **time** to start the backup o. In the Maximum wait time box, enter the **length of time** the system can wait before starting the backup p. Click **Save** to schedule the backup	
2.	Remove backup from the Backup Scheduler. a. On the Backup Scheduler window, click to select the **scheduled backup** that you want to delete b. Click to open the **File** menu and click on **Delete**	

Step	Symposium Express Call Center Backup and Restore (continued)	V
3.	Perform an unscheduled partial backup of the Symposium Express Call Center database by selecting Backup from the System Administration drop-down menu in the Administration window. a. Make sure the services on your server are up b. Make sure your server is set up to back up either to a tape or to a remote directory c. Log on using the **customer administrator** or **system administrator** user ID d. If you are backing up your database to a tape, place a tape in the tape drive of the server e. In the Administration window, from the **System Administration** drop-down menu, choose **Backup** f. To begin the backup process, click **Start** g. The backup starts and runs until it is complete	
4	Check log file. a. Browse to the following location on the Symposium Express Call Center server PC: d:\Nortel\data\backup\backuplogs b. The file name for a backup log is SCCS_Database *yymmdd hhm*m.LOG	
5	View the procedure that you would use to restore the Symposium Express Call Center database from a tape that was created from a partial backup. a. Log on to the server as **NGenSys**. b. Verify that the system is set to restore the database from either a tape or remote directory by viewing the settings on the Network DB Backup Path dialog box c. From the Windows **Start** menu, click on **Programs**, **Symposium Express Call Center**, **Database Restore**. The Database Restore dialog box opens. d. If restoring from the tape drive, insert the tape containing the database backup. e. When the tape in the drive stops moving, click **Start Restore** to begin the database restore process. f. Wait until the Database Restore Completed message appears	



Skill Check 2

Voice Services Backup and Restore

Use your notes, lesson material, the *Symposium Express Voice Services Card Installation Guide*, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide* as reference material to assist in performing the tasks below.

1. Backup the Call Treatments recorded for the VS Card.
2. Perform the VS Card Database Backup
3. Restore the VS Card from the backup files.



Skill Check 2 Feedback

Voice Services Backup and Restore

You have successfully completed the Skill Check when you have completed a full Voice Services backup and have restored both the Voice Services database files and the call treatments on the ATA hard drive card.

Step	Symposium Express Call Center Voice Services Card Backup and Restore	V
1.	Backup the Call Treatments recorded for the VS Card. a. Back up the call treatments on the Voice Services PCMCIA ATA hard drive card using a computer with a PCMCIA card drive b. Back up the call treatments on the Voice Services PCMCIA ATA hard drive card using the File Transfer Protocol on the Symposium Express Call Center server PC	
2	Backup the VS card database and configuration data a. Log on to the server as **NgenSys** b. From the Windows **Start** menu, click on **Programs**, **Symposium Express Call Center**, **Voice Services**, and then **Database Backup-Restore**. The Voice Service database backup and restore dialog box opens. c. **Insert** the preformatted disk for the backup d. **Browse** to the location of the disk e. In the File name field of the Browse window, type a **name** for the backup file with the extension .csv, and then click **Open** f. Click **Backup**. The system backs up the Voice Services database and configuration data to the .csv file. g. Wait until the Backup completed successfully message appears and then click **OK** h. Remove the disk and label it with **date**, **version**, **customer name**, and **server name**	

Step	Symposium Express Call Center Voice Services Card Backup and Restore (continued)	V
3.	Restore the VS Card from the backup files. a. Restore the call treatments on the ATA hard drive card - Restore the call treatments on the Voice Services PCMCIA ATA hard drive card using a computer with a PCMCIA card drive - Restore the call treatments on the Voice Services PCMCIA ATA hard drive card using the File Transfer Protocol on the Symposium Express Call Center server PC b. Restore the VS card database and configuration data - Log on to the server as **NGenSys**. - Insert the floppy disk that contains the Voice Services database and configuration backup file. - From the Windows Start menu, choose **VS Database Backup-Restore**. The Voice Service database backup and restore dialog box opens. - Browse to locate the previously backed up **.csv file**, and then click **Restore**. - When the system indicates the restore is successful, remove the disk from the drive, and close the Voice Service database backup and restore dialog box.	

Summary

In this lesson you learned how to preserve data from your Symposium Express Call Center that will allow you to restore your call center in the event of a catastrophic system failure. The different types of backup, and the files that each backup preserves, have been explained in detail. You have had the opportunity to perform both backup and restore operations in a controlled laboratory environment. You are now prepared to perform these tasks on your job site. The knowledge gained in this lesson, and the ability to quickly restore your call center from backup tapes, will save hours of system down time.

Appendix A: Local Area Networks

Introduction

This appendix gives an overview of the Local Area Network (LAN) and how it relates to the Symposium Express Call Center product. A working knowledge of LANs will assist you in understanding the structure of a network and the terminology used in computer networking. This appendix will also introduce how to troubleshoot problems that may arise on a LAN. A working knowledge of LANs and TCP/IP is a prerequisite of this course.

Objective

After completing this appendix, you will be familiar with the following tasks:

- Identify hardware components of an Ethernet network
- Become familiar with networking terms
- Differentiate between a MAC address and an IP address

Resources

Refer to the following resources, as needed, to complete the appendix.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"*Getting Started*"		

Terms

Bandwidth

The maximum data carrying capability of a network. A 10BaseT network has a bandwidth of 10 megabits per second. (In digital information, a bit represents either zero or one.)

Bindings

Paths from the upper layer network services and protocols to the lowest layer of adapter card device drivers. Each network component is bound to one or more network components to make that component's services available.

Bridge

A device that connects two or more networks.

BUS

A type of LAN topology (physical configuration) where a single segment of cable (transmission medium) directly connects all network devices. Symposium Express Call Center supports 10BaseT Ethernet, a BUS topology.

Default Gateway

On a TCP/IP network, the default gateway is the local IP router used to find destinations beyond the local network.

Ethernet

A type of LAN protocol or convention featuring a bus topology, using Carrier Sense Multiple Access with Collision Detection, (CSMACD) to control access to the physical media. Symposium Express Call Center supports an Ethernet configuration.

Ethernet address

Physical Ethernet node address residing in the adapter's on-board memory.

Ethernet AUI Cable

Cable used with Meridian 1 Options 11C, 11C Compact, 51C, 61C, 81, and 81C systems to connect Ethernet port on Call Processor Card to the I/O panel on the Core and Core/Network modules.

Host

A device on a LAN that stores files and applications that can be shared by other computers.

Hub

A device that provides the physical Ethernet connection between LAN devices (like the old-fashioned switchboard.)

IOP/CMDU Card

Triple wide card installed in slot 17 of Core/ Network Module. It replaces I/O Processor (IOP) and Core Multi-Disk Unit (CMDU) packs but reacts as if separate packs remain.

IP Address

A 32-bit integer used to identify a node on a network. In the Symposium Express Call Center operating environment, the PBX, the Server PC and the Client PC must have unique IP addresses. The IP addresses are defined in Overlay 117 for the PBX, Windows NT for the file server and Windows NT or Windows 95 for the Client PC.

Interrupt (IRQ)

The PC assigns an IRQ number to the adapter when it starts up. The number is unique and requests attention from the computer.

LAN (Local Area Network)

A computer networking technology that supports the sharing of data and peripherals devices within a building or a small geographic area, typically at a relatively high speed.

LAN Device

Devices connected to the LAN. In the Symposium Express Call Center environment, connected PCs, PBXs, and shared printers are examples.

Logical Link Control (LLC)

Part of the Data Link layer that connects higher level protocols to the Media Access Control (MAC).

Media Access Control (MAC)

Address burned into card to identify hardware component.

Multiple Access Unit (MAU) -Token Ring

A device used to allow connection of the signals on VPS (Voice Processor Server) to an external LAN.

NetBIOS Interface

Link between network protocol drivers and Windows NT that communicates with drivers for specific network adapter cards.

OSI

Open System Interconnect model used to standardize concepts and facilitate understanding of networking layers.

Ping

Program on a PC that allows you to test network connectivity. Access DOS from Windows and type PING<space> IP Address <cr>. This tests the first layer (physical) of the OSI Model.

Remote Access Service (RAS)

Windows NT program used to control the server, view users, monitor traffic and troubleshoot from a remote location.

Router

Device that makes decisions about which of several paths LAN traffic will follow. Defined in Overlay 117 for the PBX, Windows NT for the file server and Windows 95 for the PC.

Server/File Server

A device that stores information that other computers on the network can access and retrieve.

Simple Network Management Protocol (SNMP)

A protocol that monitors and controls devices on a network that uses host names and IP addresses to recognize the devices to which it sends commands and receives information requests.

Subnet Mask

An extension of the IP addressing scheme that allows a site (location) to use a single IP network address for multiple physical networks. Defined in Overlay 117 for the PBX, Windows NT for the file server and Windows 95 for the PC.

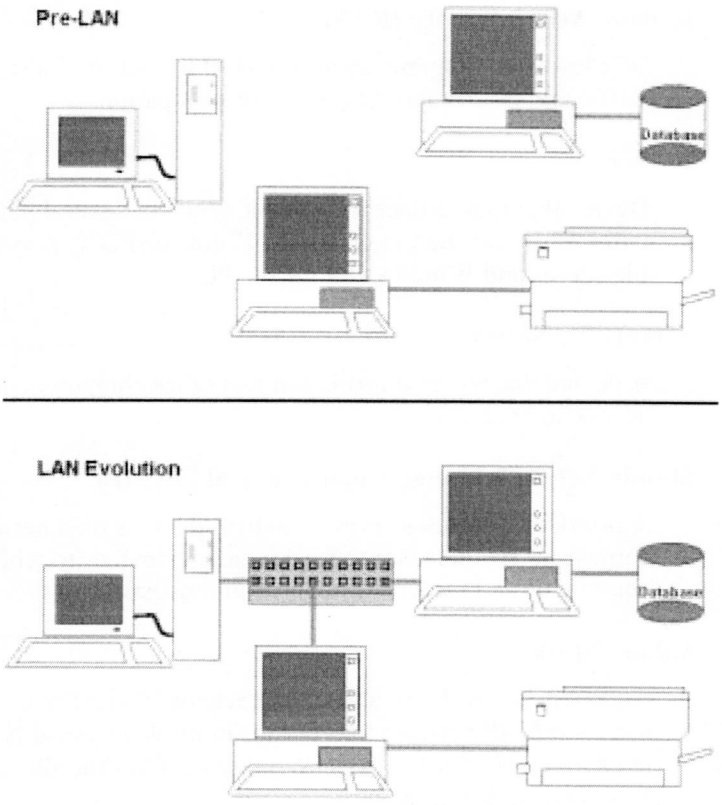
TCP/IP (Transport Control Protocol/Internet Protocol)

A standard network protocol (originally developed by the U.S. Defense Department) used for Internet and World Wide Web transmissions. Symposium Express Call Center requires this protocol.

LAN Basics

Without LANs, each user needs individual components, such as a printer and database. With a LAN, users can share expensive peripheral devices, including disk drives, printers and programs. You save money when peripheral devices can be shared.

Figure 1: LAN Evolution



Notes



The Open Systems Interconnection (OSI) Model

In order to standardize concepts and facilitate an understanding of networks, the International Standards of Operation (ISO) developed a reference model for computer networking. The OSI model contains seven layers. Each layer is a specific and separate piece of computing. When a company develops tools for data processing, it usually targets a particular layer, as the entire model is too complex to be addressed as a whole.

Figure 2: OSI Model

Application
Presentation
Session
Transport
Network
Data Link
Physical

Notes



Table 1: The OSI Model with Explanations and Examples

OSI Reference Model	Layers	Explanation	Example
Application	7	Serves as interface between corresponding application processes that exchange information.	Network applications, such as FTP, telnet, ping
Presentation	6	Responsible for formatting application data so it can be displayed or printed on the network. Relates to the way data is represented on the computer.	Converting encryption code or translating character sets DOS and its programs.
Session	5	Provides remote procedure call support. Provides connection services, such as establishing and maintaining a session.	NetBIOS Winsock
Transport (messages)	4	Concerned with **transmission reliability.** Provides reliable user-to-user communication and error checking. Provides transparent data transfer services between session layers by relieving concerns of how **reliable,** cost-effective data transfer is achieved.	Examples of TCP/IP Transport Protocols: **TCP** (used for telnet, ftp, etc.) UDP (used for rlogin, ping, etc.)
Network (packets)	3	Manages the operation of the network. Responsible for **routing** and management of data exchange between transport layer entities within the network. Addresses and routes packets. Handles fragmentation and reassembly of data.	If host sends data to a different subnetwork, this layer reads the address and sends data to router for forwarding. Network Protocols: **IP**.
Data Link (frames)	2	Controls physical layer data flow (collisions) Detects/corrects physical layer transmission **errors** Error detection types: Parity, CRC (Ethernet) Sublayers: **MAC**(media access control) and **LLC**(logical link control)	Ethernet, Token Ring, ProNET, StarLAN, X.25, etc. Device Driver of NIC
Physical (bits)	1	**Transmits** raw data over a communication medium. Defines network electrical & mechanical characteristics	Gateways, Routers, Bridges, transceiver, network card, cable.

Notes



Physical Layer - Layer 1

The lowest layer of the OSI model controls the way data is sent and received over a physical medium. It carries the signals for the higher layers. This layer recognizes electrical, optical, and mechanical interfaces. Examples of these interfaces are pin connectors, voltage, digital or analog signaling and electrical or optical mediums. This would include connectors, cables, and adapters.

Cabling

Table 2: LAN Cabling

Medium	Type	Bandwidth (bits/sec)
Unshielded Twisted Pair (UTP) leased phone lines satellite	**10BaseT** **(100 m)**	kb-1Mb/sec 9.6 kb-1.544 Mb/sec 56 - 212 Kb/sec
Fast Ethernet (4 pairs Cat. 3,4,5 UTP)	**100BaseT4** **(100 m)**	100 Mb/sec
Fast Ethernet (2 pairs Cat 5 UTP & Type 1 STP)	**100BaseTx** **(100 m)**	100 Mb/sec
Fast Ethernet (62.5/125 micron multimode fiber - 2 strands) superconductors	**100BaseFx** **(412 m)**	100 Mb/sec 1 Tb/sec

Notes

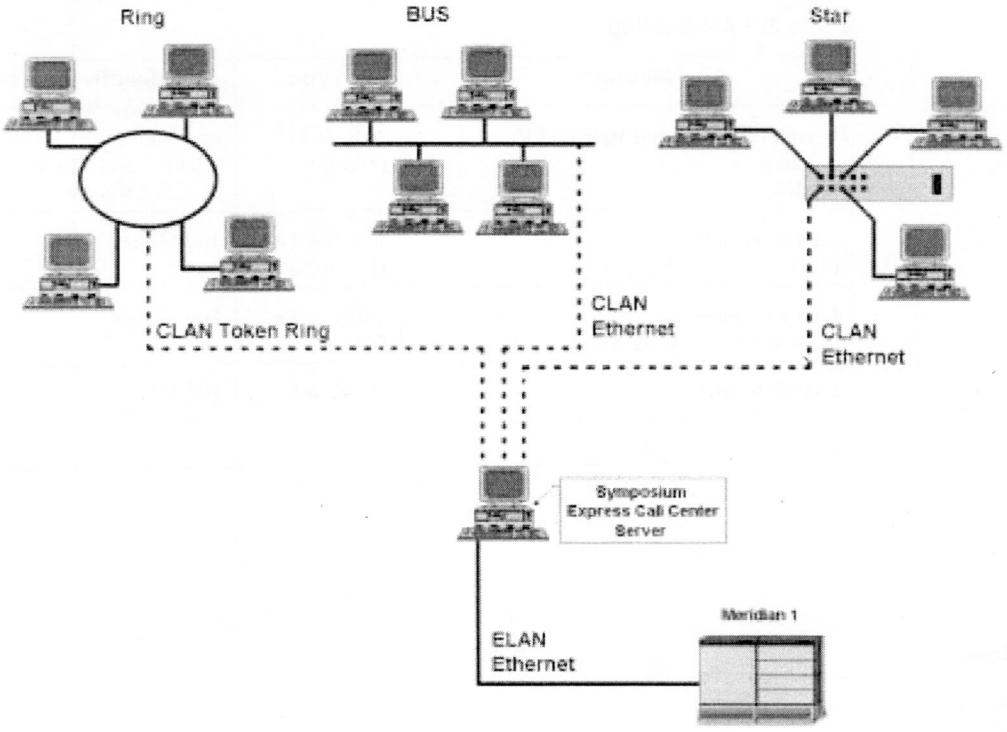


Topology

Network topologies refer to the way that LAN components are physically cabled together. There are three types of network topologies, the Bus, the Ring, and the Star.

The figure below illustrates the three LAN topologies as they can exist in the Symposium Express Call Center environment.

Figure 3: LAN Topologies in a Symposium Express Call Center



Notes



Data Link - Layer 2

Layer 2 provides transfer of data frames between computers over the physical layer. Examples of layer 2 functions are error checking, controlling frame flow, and establishing and terminating the connection between two computers. The Data Link layer is further divided into two other layers: Logical Link Control (LLC) and Media Access Control (MAC).

Media Access Control

Media Access Control (MAC) is the set of rules that define how a station on a LAN gains access to the physical media (the cable or fiber connecting the computers). Put into simple terms, it explains how a computer sends and receives information. MAC - Ethernet IEEE 802.3 and MAC - Token Ring IEEE 802.5 are two examples of Media Access Control that apply to the CLAN of Symposium Express.

MAC - Ethernet IEEE 802.3

In an Ethernet network, a station with data to send will first listen for traffic on the LAN before attempting to send the data to another computer. When there is no traffic on the LAN, the station may transmit. The station then listens, while it is sending the data, for any other traffic on the LAN.

If two stations transmit data at the same time, a collision occurs. If a collision is detected, the detecting station sends a jamming signal. The transmitting station then retreats (stops transmitting data) for a random period of time, and then, when there is no traffic, attempts to send the data again.

This process is known as Carrier Sense (listening for traffic), Multiple Access (many computers) with Collision Detection (listen while transmitting), or by the acronym CSMACD.

Notes



MAC - Token Ring IEEE 802.5

In a Token Ring network, the first computer to sense the ring becomes the manager for the ring. To begin the transfer of data, the ring manager sends a packet out onto the ring with the token bit set. This packet can be thought of as an empty envelope.

When a computer on the ring has data to send, it captures the token packet. The computer then replaces the token packet with a data packet. This may be thought of as putting a letter (the data) into an envelope (the data packet). The data packet is addressed with source and destination IP addresses. The destination IP address is the IP address of the computer that the data packet is intended for and is comparable to the address on the envelope. The source address is the IP address of the sending computer and may be compared to the return address on the envelope. The data packet is then passed on the ring to the next computer.

As the data packet moves around the ring, each computer in turn will receive the packet and check the source and destination IP addresses. When a receiving computer has the same IP address as the destination IP address, the computer copies the data from the packet into its file system and then passes the packet on. If the destination address does not match the computer passes the packet on with out copying the data.

When the source IP address matches the computer's IP address, the packet has completed its trip around the ring and is back at the sending computer where it originated. The sending computer will first check the data packet to ensure that the data has not been changed or corrupted and will then remove the data packet from the ring and replace the token packet. The token packet will then be passed around the ring until the next station with data to send captures it.

A Token Ring network will also have computer that serves as an Active Monitor. The Active Monitor checks for repetitive packets and removes them from the ring. A repetitive packet is a data packet that has been passed to the Active Monitor more than one time. A computer that sends a data packet out and then drops off the ring before the data packet is returned to it can cause a repetitive packet. The Active Monitor will remove the repetitive data packet and replace it with a token packet.

Notes



Logical Link Control

Logical Link Control (LLC) provides Service Access Points for users, connects higher level protocols to the MAC technique, allows for inter-protocol communication, and offers different data link services.

Network-Layer 3

This layer determines the physical path the data takes. The network layer is responsible for establishing, maintaining and terminating the connection to systems in the communication subnet.

Internet Protocol (IP) is a part of this layer. It provides connectionless (communication sent without connection established, best effort) delivery, such as sending mail. It also provides addressing, time to live, and allows for communication between different networks. Time to live refers to the amount of time that a data packet can exist on a network.

IP Network Addressing

An IP address is a 32-bit number expressed in a format of n1.n2.n3.n4, with each n(x) representing an 8-bit numeric sequence that is typically expressed in decimal format. Each 8-bit sequence of numbers is called an octet. Each octet is expressed as a three-digit number that generally ranges from 0 to 255. Specific rules for IP addresses are listed below.

An IP address is composed of a network address and a host address. The network address may consist of the first octet (class A), the first and second octets (class B), or the first three octets (class C). The remaining octet(s) are the host address. Network address classes are defined in Table 3.

Table 3: IP Address Classes

Network Class	First Octet Value	Network Address	Host Address
Class A	1-126	n1.	n2.n3.n4
Class B	128-191	n1.n2.	n3.n4
Class C	192-223	n1.n2.n3.	n4

Notes



For example:

- 130.120.0.0 identifies a class B network
- 130.120.110.100 identifies the IP address for a PC on the 130.120.0.0 network
- 130.120 is the network portion of the IP address and .110.100 is the host portion of the IP address for the PC

Each network class has a specific number of network addresses and host addresses available for each network as shown in Table 4.

Table 4: Network Classes

Network Class	First Octet Value	Number of Networks	Number of Hosts
Class A	1-126	126	16,777,214
Class B	128-191	16,384	65,534
Class C	192-223	2,097,152	254

IP Address Rules

The following are rules governing IP address on a public network:

- n1 cannot be zero, 127 or equal to or greater than 224
- n1.n2.n3 ranges between zero and 255, but zero and 224-255 are reserved
- n1.n2.n3 cannot all be 255
- n1 cannot be 127 (127 is reserved for loopback address)

The Subnet Mask

The Subnet mask allows a computer or router to determine which part of the IP address is the network address and which part is the host address. This determination allows the router to direct the packets of information to the correct destination within a computer network. Also, a computer will only accept and process those data packets where the destination network address matches the network portion of the IP address that is programmed in the computer's memory.

Notes



The Subnet mask conceals the host number in an IP address and reveals the network address. This works because in the Subnet mask, all bits for the host address are turned off (zero) and all bits for the network address are turned on (one). If the network address for a data packet matches the network address for the computer network, the information can be passed. If not, the information must be routed to a network with the correct network address.



Tip: *To demonstrate binary number conversion, you can use the calculator program on any Windows PC. From* ***Start****, select* ***Programs****,* ***accessories*** *, and then* ***Calculator****. Under the* ***View*** *drop down menu, insure that* ***Scientific*** *is checked.*

Enter the number ***255*** *in Decimal format. On the upper left side of the calculator display, click to select* ***Bin*** *for Binary format. Notice that the display changes from* ***255*** *in Decimal format to eight bits that are all set to one or* ***11111111*** *in Binary format.*

You can convert any IP address from Decimal format to Binary format using this method. For example, the IP address ***130.120.110.100*** *in Decimal will convert to* ***10000010.01111000.01101110.01100100*** *in Binary*

The 255 or 11111111 in the subnet mask will mask any numbers in the network address of an IP address.

Notes



Standard Subnet Masks

The standard Subnet masks for each IP Network Class are listed below.

Table 5: Standard Subnet Masks

Network Class	Network Address	Standard Subnet Mask
Class A	n1.	255.0.0.0
Class B	n1.n2	255.255.0.0
Class C	n1.n2.n3	255.255.255.0

Notice that for each network class, the 255(s) in the Subnet mask correspond to and will mask off the network portion of the IP address.

Compare these IP addresses:

128.127.50.2

128.127.50.36

128.127.52.7

First, notice that all of these addresses are class B network addresses. Next, notice that these three addresses all share the same network address, 128.127. If we apply a standard class B Subnet mask of 255.255.0.0 the network addresses are masked and compared and the host addresses are filtered.

Table 6: Network and Host Addresses with Subnet mask of 255.255.0.0

Network Address	Host Address
128.127	50.2
128.127	50.36
128.127	52.7

Because all of the host addresses belong to the same network, all of the PCs can send information to each other.

Notes



Using Subnet Masks to Divide Networks

Now change the Subnet mask to 255.255.255.0, the standard Subnet mask for a class C network. Just as before, the first two octets (128.127) of the IP address are masked. However, this time the third octet is also masked, extending the network portion of the address. This will create more possible subnetworks, but each subnetwork will have fewer possible host addresses.

Table 7: Network and Host Addresses with Subnet mask of 255.255.255.0

Network and Subnet Address	Host Address
128.127.50	.2
128.127.50	.36
128.127.52	.7

Now only the PCs belonging to the 128.127.50.0 subnetwork will be able to communicate with each other. The PC belonging to the 128.127.52.0 subnetwork is isolated from the other two hosts. A router will be needed to allow communications between the two subnetworks.

Nonstandard Subnet Masking

The purpose of subnet masking is to partition a large physical network into smaller, isolated, logical subnetworks. These subnetworks are physically and logically interconnected through the use of routers, switches, and other devices. In some network implementations the administrator will need to divide the assigned network address into smaller isolated subnets. The use of nonstandard Subnet masking allows the administrator to create a specific number of subnets, each with a specific number of hosts.

Subnet Masking and Symposium Express Call Center

Subnet masking is important for Symposium Express Call Center in that Meridian 1 switch AML traffic must be segregated from the customer's LAN for security and traffic control. To accomplish this, the CLAN and the ELAN each are installed in different subnetworks. Any time that a device on the CLAN needs to communicate with a device on the ELAN, a router must be used. The router will pass only the traffic between these two devices. All other data packets will be blocked and isolated to their own subnetworks.

Notes



Subnet Mask Filtering in Binary

Subnet mask filtering in binary format is shown below.

Table 8: IP Address / Subnet Masking in Binary

IP Address with Standard Class C Subnet Mask: 255.255.255.0

n1								n2								n3								n4							
IP Address 128								127								50								2							
1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0	0	1	0
Subnet Mask 255								255								255								0							
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Subnet Address 128								127								50								Host address 2							
1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	0	0	1	0	0	0	0	0	0	1	0

IP Address with Standard Class B Subnet Mask: 255.255.0.0

n1								n2								n3								n4							
IP Address 128								127								50								36							
1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	0	1	0	0	0	1	0	0	1	0	0
Subnet Mask 255								255								0								0							
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subnet Address 128								127								Host address 50								36							
1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	0	0	1	0	0	0	1	0	0	1	0	0

IP Address with Nonstandard Subnet Mask: 255.255.240.0

n1								n2								n3								n4							
IP Address 128								127								52								7							
1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	1	1	0	1	0	0	0	0	0	0	0	1	1	1
Subnet Mask 255								255								240								0							
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Subnet Address																Host address															
1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	1	1	1	0	0	1	0	0	0	1	0	0	1	0	0



Tip: *When installing Symposium Express, always check with the customer's Network Administrator for the correct IP Address and Subnet mask for the Symposium Express server, client, and Meridian 1 switch.*

Public and Private IP Addressing

IP addresses are purchased and assigned by an agency. If your internal network is to attach to the Internet, you must have a legal, assigned IP address. However, if you have a private internal network with no outside connections, you can use any addressing system that fits your network needs. Many companies use a private addressing format for their internal network and public addresses on a router that connects the Internet and the private internal network. The router uses an address translation protocol to resolve public to private addressing. This provides a layer of security for the company's network.

MAC Address vs. IP Address

The MAC address, also known as the physical address or the layer 2 address for a network device, is physically installed in the network device by the manufacturer and generally cannot be changed. The first half of the MAC address is a manufacturer's code that identifies the company that made the device. The second half of the MAC address is a serial number specific to an individual device.

The IP address, also known as the network address or the layer 3 address for a network device, is assigned by the user and can be changed easily via software.

Notes

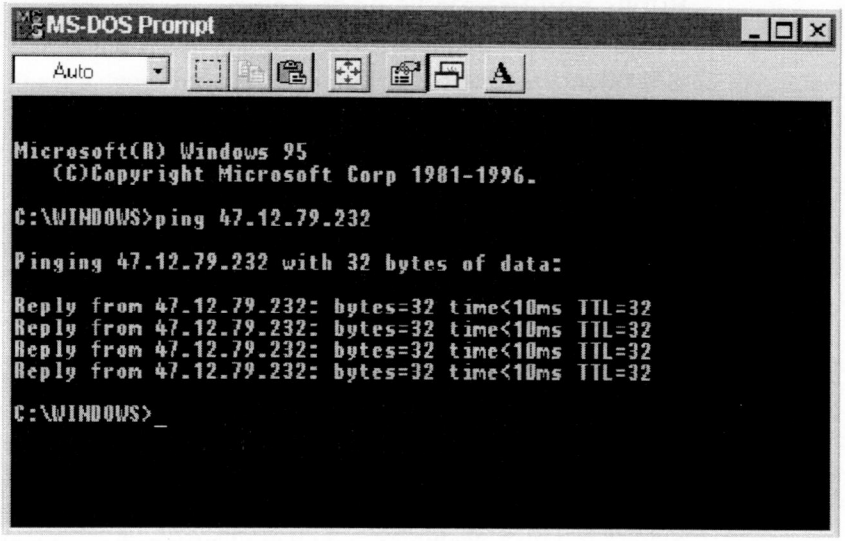


The Ping Command

You will use the ping command to test network connectivity. From the DOS prompt, type **ping** (space) **IP address** and enter.

Example: C:/>ping 47.12.79.232

Figure 4: The ping Command



The "Reply from" response indicates a good network connection. A "Request timed out" response would indicate a bad network connection.

Notes



Transport - Layer 4

The transport layer delivers messages in the order they were sent. If a message is larger than the network layer can handle, the transport layer breaks the message into manageable frames and attaches a header.

Transmission Control Protocol (TCP) resides at this layer. TCP maintains the connection, recovers from short term network problems, controls data flow and avoids congestion on the network

Session - Layer 5 and Presentation - Layer 6

The session layer establishes communications between processes. It registers a unique address such as NetBIOS names, delimits messages and provides support functions such as user authentication and security. Examples of network application programming interfaces residing at this level are Windows Sockets, NetBIOS and Open Database Connectivity, ODBC.

The presentation layer serves as the data translator for the network. Examples are character translation and password encryption.

Application - Layer 7

The application layer is the interface between application processes and the network services. Some common functions are remote file access, remote printer access, network management, directory services and e-mail.

Notes



Troubleshooting LANs and the OSI Model

Familiarity with the Open System Interconnect (OSI) Model will help you in troubleshooting networking problems. The table below shows the layer and the corresponding failures associated with it.

Table 9: Failures and the OSI Model

OSI Model	Failure Percentages
Applications - Layer 7	3%
Presentation - Layer 6	7%
Session - Layer 5	8%
Transport - Layer 4	11%
Network - Layer 3	12%
Data link - Layer 2	25%
Physical - Layer 1	35%

When identifying and resolving network errors, keep in mind these statistics. It is a good idea to begin troubleshooting with the Physical Layer 1 and work up by layers; 60% of problems come from the Physical Layer and the Data-link Layer.

From a service viewpoint, the technician is responsible for layers 1 and 2, the network technician for layers 3 and 4, the MIS department for layers 5 and 6 and the designers and users of the system for layer 7.

Notes

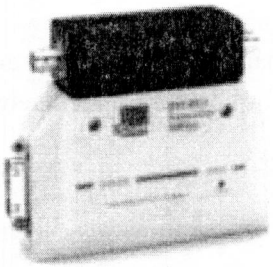


Components of a Local Area Network (LAN)

Table 10: Components of a LAN

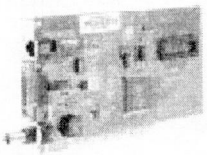
Component	Example
Nodes	Servers, workstations, host computers
Shared resources	printers, disks, application programs
Network Interface Card (NIC)	PC to LAN adapter
Cable	Coaxial twisted pair, fiber optic

Transceiver



- Layer 1
- converts from 10BaseT / 10Base2 / 10Base5 / 10BaseFL to AUI connector (15 pin)

Network Interface Card (NIC)

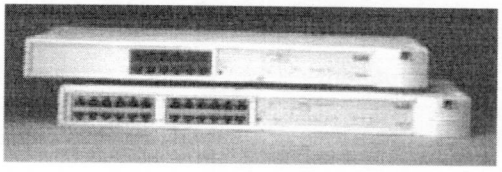


- Layer 2
- 48-bit unique physical address assigned by manufacturer
- Physical Address = 3-byte Manufacturer's code + 3-byte unique code

Notes



Hub



- Layer 2
- signal amplifier

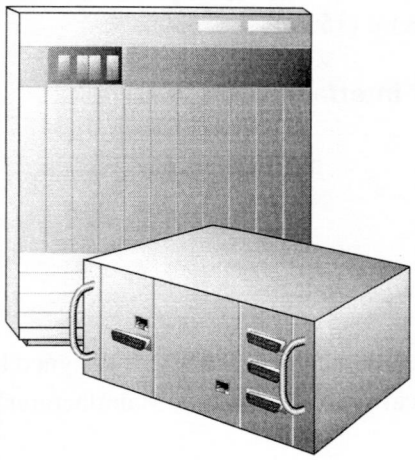
LAN Switches

- Layer 2
- dedicated connection between two users
- eliminated bandwidth contention and performance issues
- commonly located near shared network resources



Tip: *The difference between a LAN switch and a Router is that a LAN switch operates at Layer 2 and the Router operates at Layer 3.*

Router



- Layer 3
- Address filtering
- Protocol converter - can join dissimilar protocols

Notes



Practice

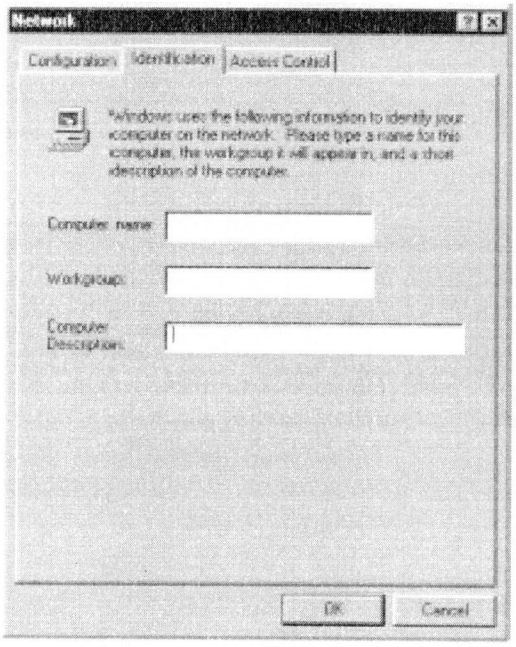
LAN Troubleshooting Questions

Use a PC with a NIC card installed that is connected to a network to follow the procedures below. If the equipment is not available to you write out the steps that you would follow in the spaces given.

Refer to your notes, and this appendix to answer the questions.

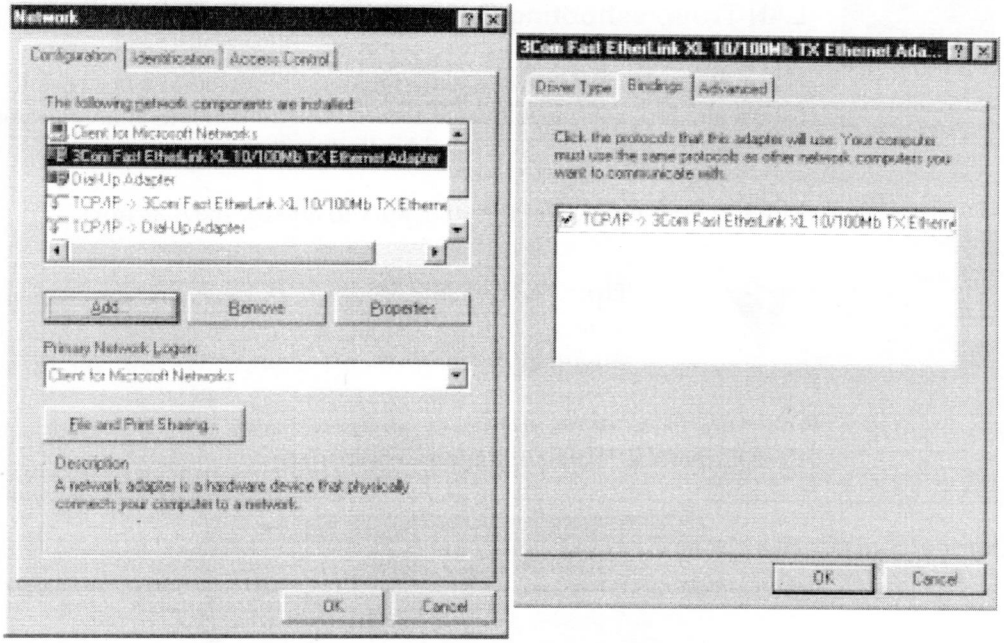
Tip: *The screen captures in this practice were taken from a Windows 95 PC. The screen captures will be slightly different if you are using a Windows NT PC.*

From your PC desktop, right click on the Network Neighborhood icon and select Properties. Select the Identification tab:



1. What is your Computer Name, Work Group, and Computer Description?

Select the Configuration tab, select your Network Adapter, and click on Properties. Select the Bindings tab.



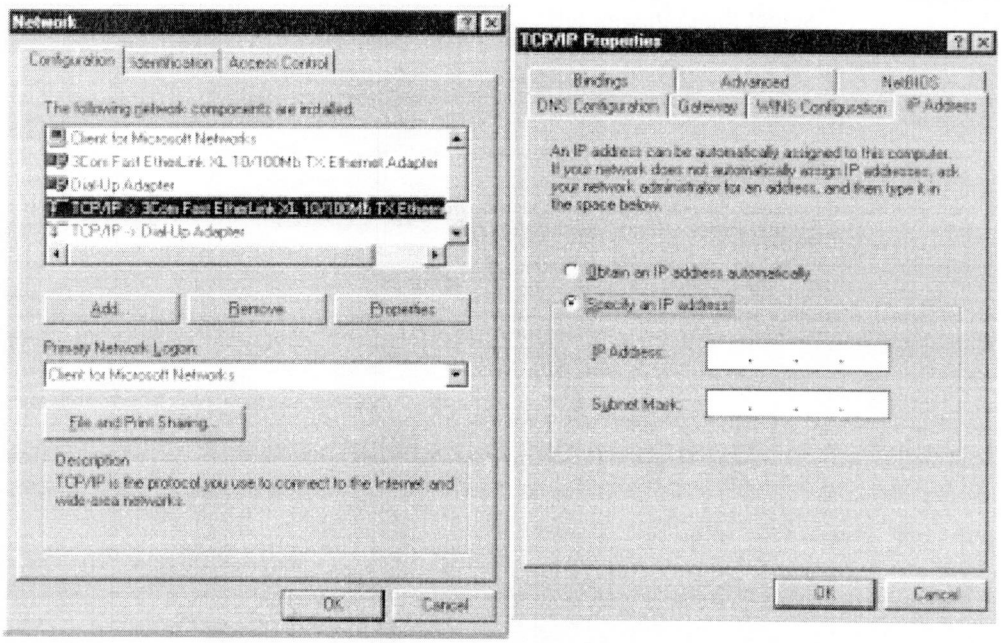
2. What protocol is listed for your NIC card?

_____

Click Cancel. Select TCP/IP, and then click on Properties.



Tip: *Click **Cancel,** not **OK,** to exit these screens without saving any changes that you may have inadvertently made. If you click **OK**, you will be prompted to reboot the computer to have the changes take effect.*



3. What is your IP address and Subnet Mask?

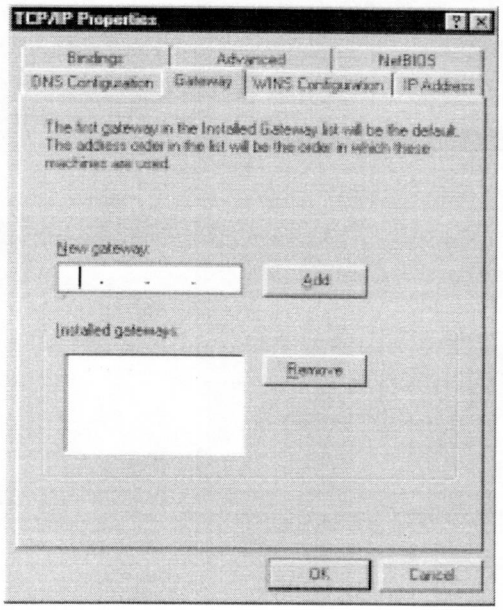
   _____

   _____

4. What Class is your IP address? _____

5. Is your Subnet Mask standard for the IP address class? _____

Select the Gateway tab.

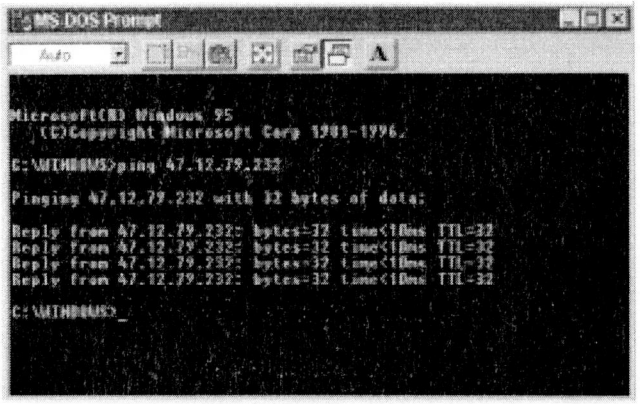


6. Do you have a Gateway installed? If so, what is the Gateway's IP address?

_____

Click Cancel to close the TCP/IP Properties window and click Cancel to close the Network window.

From the Start menu, select Programs and then MS DOS Prompt. Ping your IP address as shown in the figure below.



7. Was the ping command successful? If it was, what layers of the OSI Model have you just tested for your PC?

_____

8. If the ping command failed, what two layers of the OSI Model are most likely to have caused the fault?

_____

If you have a Gateway installed, ping the Gateway's IP address.

9. Was the ping command successful?

_____



Answers to practice

LAN Troubleshooting Questions

Check your answers to the practice.

1. What is your Computer Name, Work Group, and Computer Description?

   This answer will be unique for each student

2. What protocol is listed for your NIC card?

   This answer will be unique for each student

3. What is your IP address and Subnet Mask?

   This answer will be unique for each student

4. What Class is your IP address? **This answer will be unique for each student**

5. Is your Subnet Mask standard for the IP address class? **This answer will be unique for each student**

6. Do you have a Gateway installed? If so, what is the Gateway's IP address?

   This answer will be unique for each student

7. Was the ping command successful? If it was, what layers of the OSI Model have you just tested for your PC?

   Layer 1 - Physical, your LAN connection, and layer 2 - Network

   the NIC card in the PC

8. If the ping command failed, what two layers of the OSI Model are most likely to have caused the fault?

   Layer 1 - Physical and layer 2 - Network

9. Was the ping command successful?

   This answer will be unique for each student

Summary

This appendix provides an overview of Local Area Networks. You have learned to identify network hardware components and become more familiar with networking terms. Also, you should have an understanding of MAC and IP addresses and subnet masking.

When you install Symposium Express Call Center, you will typically be working with an existing LAN. It is necessary to have a working knowledge of networks to successfully install the software applications.

Appendix B: Product Differences

This appendix highlights the differences between Symposium Call Center Server (SCCS) and Symposium Express Call Center (SECC).

Table 1: SECC Maximum Capacities

Maximum Amount	Functionality
150	Active Agents (recommended)
300	Configured Agents
75 (Total Supervisor +Administrator + RTI sessions*)	Active Client Sessions-see note below
8	Configured supervisors (recommended)
4	Active Supervisors (recommended)
100	Skillsets
5,000	Activity Codes
75	CDNs
500	DNIS
500	CLID
5	Administrators
10	IVR Queues
50	IVR Ports
750	Trunks
24 (3 per supervisor, 3 per Administrator)	Active Real Time Displays
5000	Calls per hour
20	Treatment classes

Note: The number of active sessions supported by the server (Symposium Express Call Center Rls. 3.0) is limited to 75. This may be increased to 100 but this is dependant on capacity testing.

Table 2: Differences Between SCCS and SECC Architecture

Architecture	SCCS CCS100	SECC
Client Server	Yes	Yes
Server Operating System	NT 4.0	NT 4.0
Client Operating System	Win 95/98	Win 95/98/2000 NT 4.0
Database	Sybase	Sybase
Packaging	HW & SW	Software only

Table 3: Differences Between SCCS and SECC Features

Features	SCCS	SECC
Call Routing Wizard	No	Yes
Data Import	Yes	Yes
Defaults provided	Canned scripts and some defaults	Yes
Simplified installation process	No	Yes
Skillset routing	CCS 100	Yes
NACD Reporting	CCS 100	No
Flexible agent, supervisor and skillset admin	CCS 100	Partial
Queue to Agent	CCS 100	No
Agent-Skillset assignment scheduling	CCS 100	No
Agent-Supervisor assignment scheduling	CCS 100	No
Configurable user access options	CCS 100	No
Multiple call presentation classes	CCS 100	No
Basic Scripting commands	CCS 100	No

Table 4: Differences Between SCCS and SECC Reporting

Reporting	SCCS CCS100	SECC
Minimum refresh rate on real-time displays	0.5 seconds for Agent Stats 2 seconds for RTI	5 seconds
Standard reports supplied	CCS 100	Yes
Crystal Reports Support	CCS 100	Yes
Real Time Displays	CCS 100	Yes
Thresholds	CCS 100	Yes

Table 5: Differences Between SCCS and SECC Interfaces

Interfaces	SCCS	SECC
Link (CTI)	CCS 100	Yes
Real Time API	CCS 100	Yes
ODBC support	CCS 100	Yes
Meridian Mail Support	CCS 100	Yes
3rd Party IVR Support	CCS 100	Yes
MIRAN & RAN/Music Support	CCS 100	Yes

Appendix C: Voice Services Card Call Treatments

Introduction

This lesson provides an overview of configuring call treatments for your call center on the Voice Services (VS) card. You have previously installed the VS card in the Meridian1 switch and configured switch resources to work with the VS card. You will now learn how to create the various types of call treatments on the VS card, and map the call treatments that you create to the appropriate ACD queue. After you have recorded your call treatments, you will have the opportunity to back up the VS Card data and restore that data after a system failure. Practices and hands-on exercises are provided to reinforce the tasks and concepts covered in this lesson.

Objective

At the conclusion of this lesson, given your notes, lesson material, *Symposium Express Voice Services Card Installation Guide, Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*, you will be able to perform the following tasks:

- Create call treatments on the VS Card
- Map VS Card call treatments to an ACD queue
- Backup and restore VS Card data and call treatments

Resources

Refer to the following resources, as needed, to complete the lesson.

Print Resource	Location	Online Resource	Location
Symposium Express Call Center Planning, Installation, and Administration Guide	"Using the Configuration Utilities"		
Symposium Express Call Center Call Center Management Guide	" Getting started"; " Managing users"; " Configuring skillsets "; " Configuring call routing "; "Backup and restore"		

Voice Services Card Call Treatments

The Voice Services card can provide four different types of call treatments. Each of these call treatments is defined below:

- **Transfer to DN** – A Transfer to DN call treatment transfers the call to a specific DN.
- **Comfort Message** – A Comfort Message call treatment provides an announcement that is played to callers while they wait for an agent. These announcements assure the callers that they are still in the queue and that their calls will be attended to as soon as possible.
- **Play Prompt/Collect Digits** – The Play Prompt/Collect Digits call treatment to collect single or multiple sets of digits from the caller. A Play Prompt/Collect Digits treatment can continue prompting the caller to enter further sets of digits. For example, after the caller has entered their account number, the treatment may request the caller enter their customer number or an invoice number. A Play Prompt/Collect Digits treatment can be configured with a verify option for pre- and post-verification prompts. These prompts must be recorded, and are used to verify the digits that have been collected. For example, after prompting the caller to enter their account number and after the digits have been entered, the treatment can play back a recording of the digits that were entered and prompt the caller to "press the # key if this is correct or the * key to re-enter your account number".

Note: Play Prompt/Collect Digits is a Symposium Express Call Center keycode-enabled feature. To use this feature, you must have Symposium TAPI Service provider and Symposium Agent installed, or another agent software that is compatible with Symposium TAPI Service provider.

- **Voice Menu** – A Voice Menu call treatment offers the caller choices. When a call arrives at a Voice Menu, a greeting is played followed by a list of options and the corresponding key that the caller must press to make a selection. A common example of a Voice Menu is "Welcome to XYZ Company, to play options in English, please press 1; para el español, aprieta por favor 2."

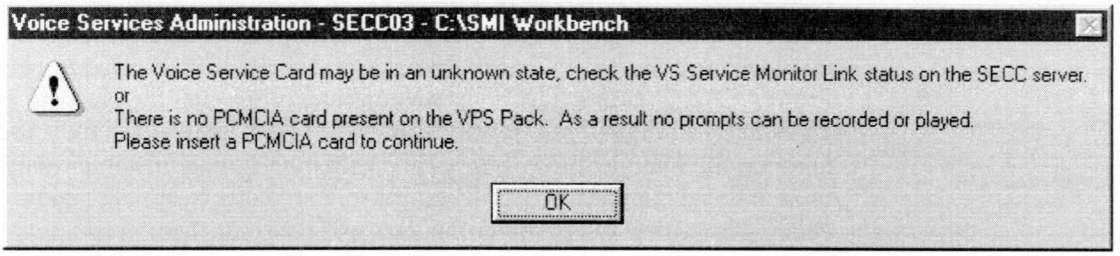
Notes



Initializing the PCMCIA Card

When you first attempt to launch the Voice Services Administration wizard on a new, out-of-the-box Symposium Express Call Center Voice Services Card, you may receive a warning message as shown below. This warning message will appear if the ATA hard drive PCMCIA card is not installed in drive A:\ or if the 48 Mbyte PCMCIA card inserted in drive A:\ has not been initialized.

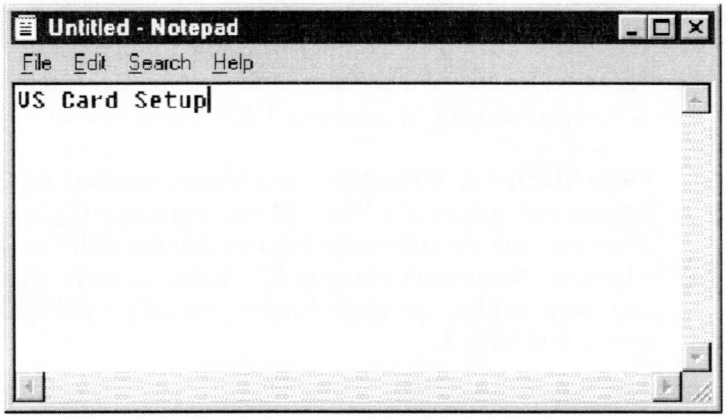
Figure 1: The Voice Services Administration Message Warning that No PCMCIA Card is Present on the VS Card



Follow the steps below to initialize the ATA hard drive PCMCIA card installed in drive A:\ on the VS card:

- Use Notepad to create a text file.

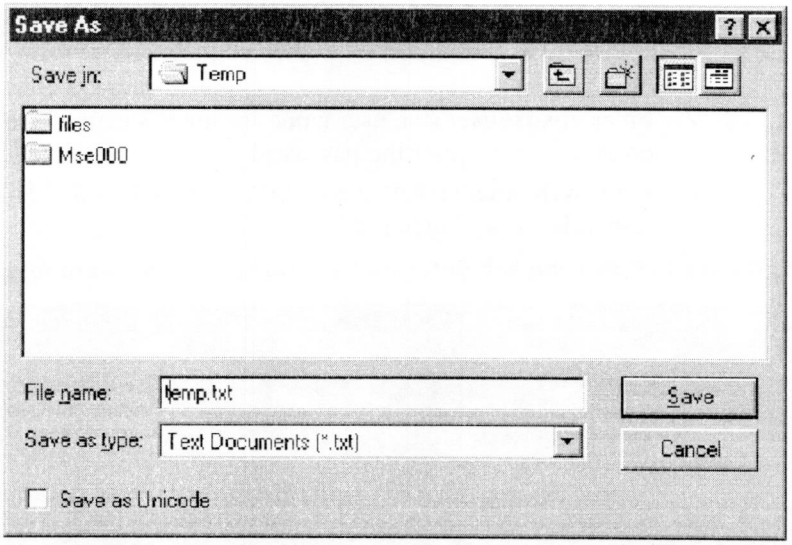
Figure 2: The Text File on the Notepad



Notes

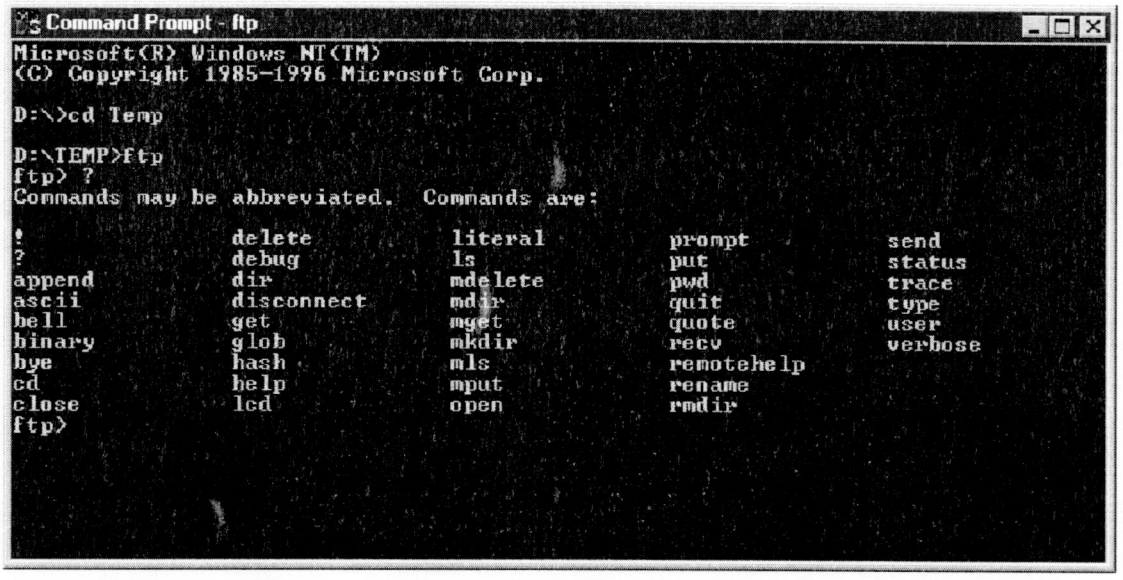


Figure 3: Saving the Text File



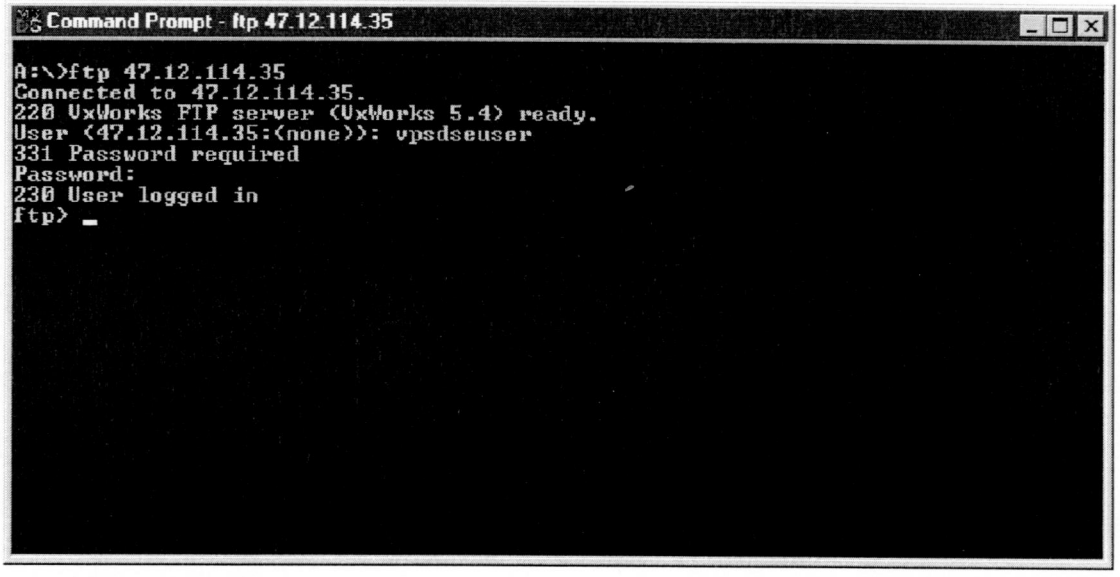
- From the **Start** menu, select **Programs** and then **MS DOS Prompt**. The MS DOS window will open.
- At the DOS prompt, **enter cd Temp <cr>** to change to the directory that contains the text file you created using Notepad.
- At the MS DOS prompt, enter **ftp** to open the File Transfer Protocol. The prompt will change to ftp>.
- At the ftp> prompt, enter **help** or a question mark (**?**). A list of FTP commands is displayed.

Figure 4: The FTP Commands



- At the MS DOS prompt, enter **ftp 47. 12.114.35** or at the ftp> prompt, enter **open 47. 12.114.35** (use the IP address of your VS card) to open a FTP connection to the VS card. The FTP program prompts you to enter a user name.
- Enter **vpsdseuser** (the user name for the VS card). The FTP program prompts you to enter the password.
- Enter **welcome2vp** (the password for the VS card). The FTP program responds, "User logged in".

Figure 5: Open a FTP Session and Enter the User Name and Password for the VS Card



Notes

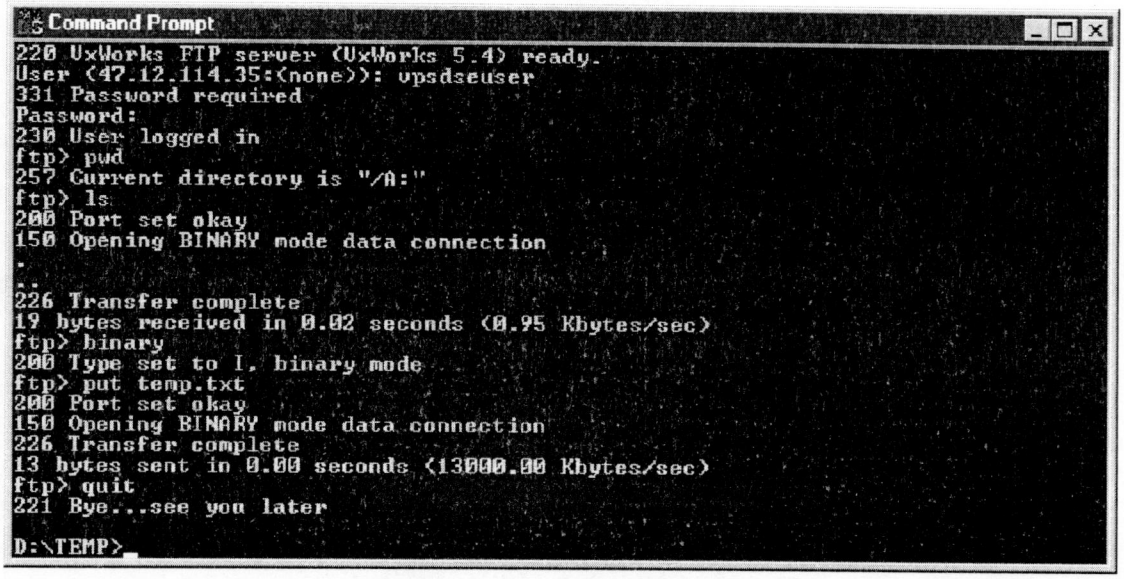


- At the ftp> prompt, enter **pwd** to print the working directory.
- At the ftp> prompt, enter **ls** to list the files in the working directory.
- At the ftp> prompt, enter **binary** to change the file transfer mode to binary format.

Caution *You must set the file transfer mode to binary. Failure to follow this step will cause the Voice Services ATA hard drive card restore to fail.*

- At the ftp> prompt, enter **put temp.txt** to copy the file from the server to the VS card

Figure 6: Transferring the File to the Empty Directory on the Voice Services ATA Hard Drive PCMCIA Card



- At the ftp> prompt, enter **quit** to close the FTP connection and end the FTP session.
- Close the Command Prompt window.

Notes

The VS Administration Wizard

The Symposium Express Call Center Administration window provides a link to the Voice Services Administration wizard. Use this wizard to record and configure call treatments that are played to customers who call in to your Symposium Express Call Center. To access the Voice Services Administration wizard from the Symposium Express Call Center Administration window, click to open the **Call Administration** menu and then click on **Voice Services**. The Voice Services Administration window opens.

Figure 7: The Symposium Express Call Center Administration Window

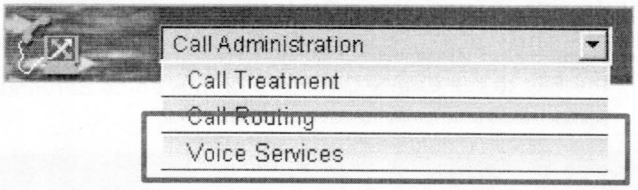
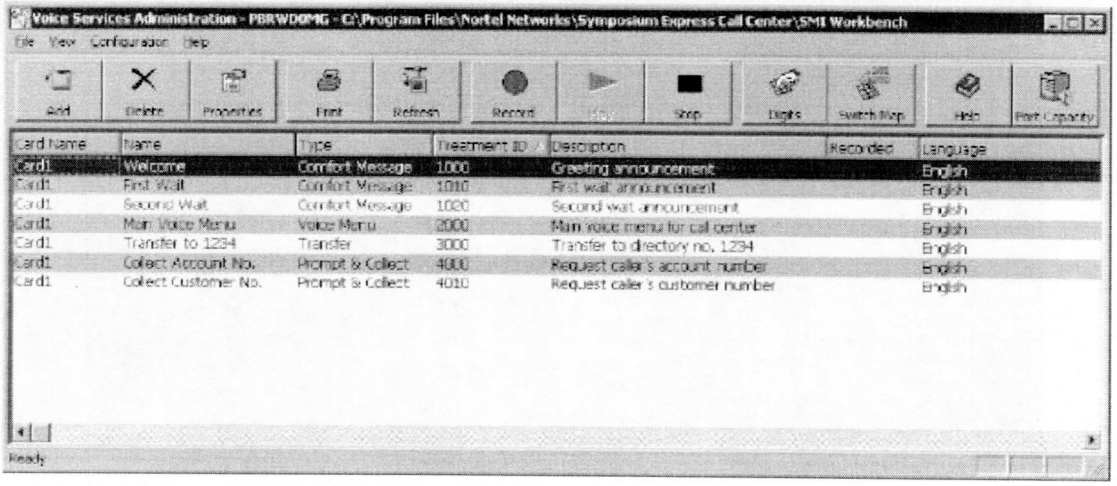


Figure 8: The Voice Services Administration Window



Notes



The VS Administration window displays a list of all VS Card call treatments that you have configured with the following information:

- **Name** – This is the name that you will assign for each call treatment
- **Type** – This the treatment type, for example, Voice Menu or Comfort Message.
- **Treatment ID** – This is a unique identifying number that will be automatically used in the scripts. For example:
  GIVE IVR 7000 with Treatment 1234
- **Description** – This is a brief comment on the purpose of the call treatment. For example on the figure above, the Voice Menu call treatment has the description "Main Voice Menu for call center".
- **Recorded** – This column displays whether or not you have saved a recording for the call treatment.
- **Language** – This column displays the language that the call treatment is recorded in.

Notes



The Voice Services Card Port Capacity Tool

The number of ports or channels on the Voice Services card required for your Symposium Express Call Center system is determined by a number of factors. The factors include the call rate for the call center and the number of call treatments configured on the Voice Services card. You must ensure that the correct Voice Services card resources are available before you configure call treatments on the card. It also may become necessary to re-evaluate these requirements if the call rate for the call center or the number of call treatments changes over time.

For Symposium Express Call Center, a Voice Services Port Capacity tool is provided as part of the client application. This tool provides a recommendation of the number of VS ports required based on the engineering and capacity guidelines for Symposium Express Call Center with the Voice Services card. Specifically the capacity tool performs calculations based on the following factors:

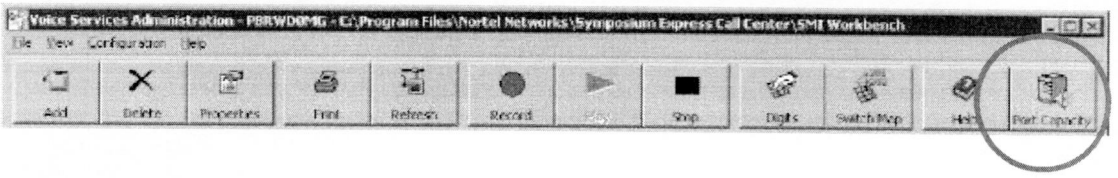
- Number of calls receiving VS call treatment
- Number of VS call treatments per Call
- Length of VS card announcements

Calculating Voice Services Card Port Requirements

Follow the steps below to access the Voice Services Port Capacity tool and calculate the port requirements for your VS card:

- On the Voice Services Administration window toolbar, click the **Port Capacity** button. The Voice Services Port Requirements dialog box opens.

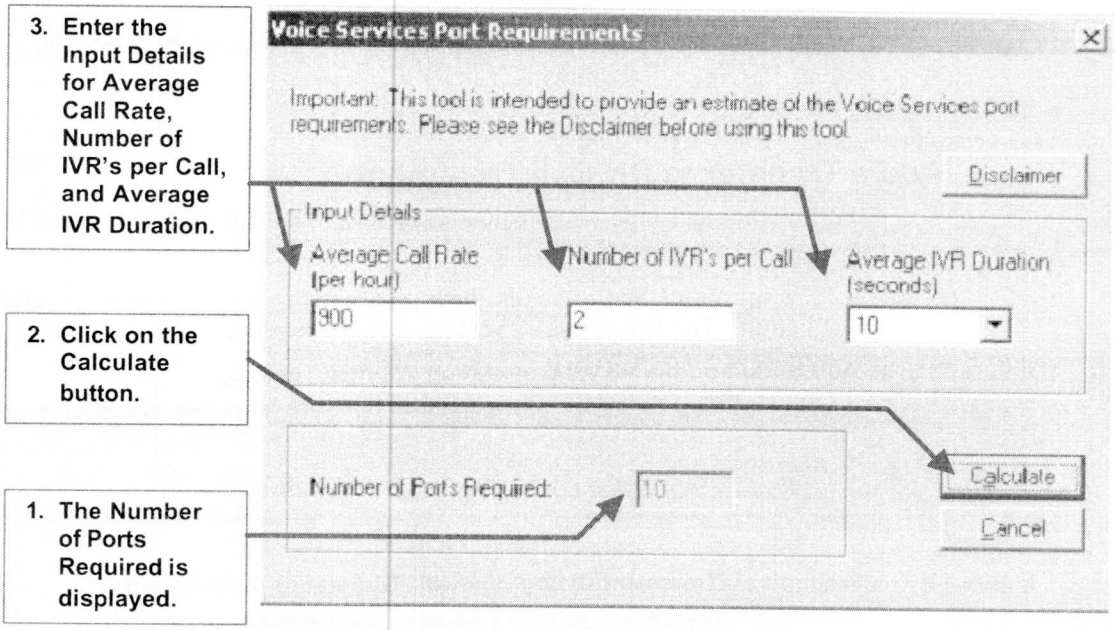
Figure 9: The Port Capacity Button on the VS Administration Window Toolbar



Notes



Figure 10: The Voice Services Port Requirements Dialog Box



- Enter the **Average Call Rate per hour** in the Average Call Rate data field.
- Enter the **Number of IVR's per Call** in the Number of IVR's per Call data field.
- Enter the **Average IVR Duration in seconds** in the Average IVR Duration data field.
- Click **Calculate**. The number of VS card ports required for your Symposium Express Call Center is displayed in the Number of Ports Required data field.

Notes



Adding New Call Treatments

Use the Voice Services Administration wizard as the interface to configure Voice Service call treatments.

Add a Transfer to DN Call Treatment

Follow the steps below to create a Transfer to DN call treatment in the Voice Services Administration wizard:

- On the Voice Services Administration window toolbar, click the **Add** button. The Properties - Treatment dialog box opens.

Figure 11: The Add Button on the VS Administration Window Toolbar

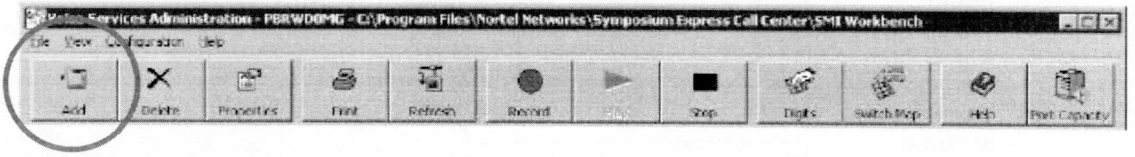
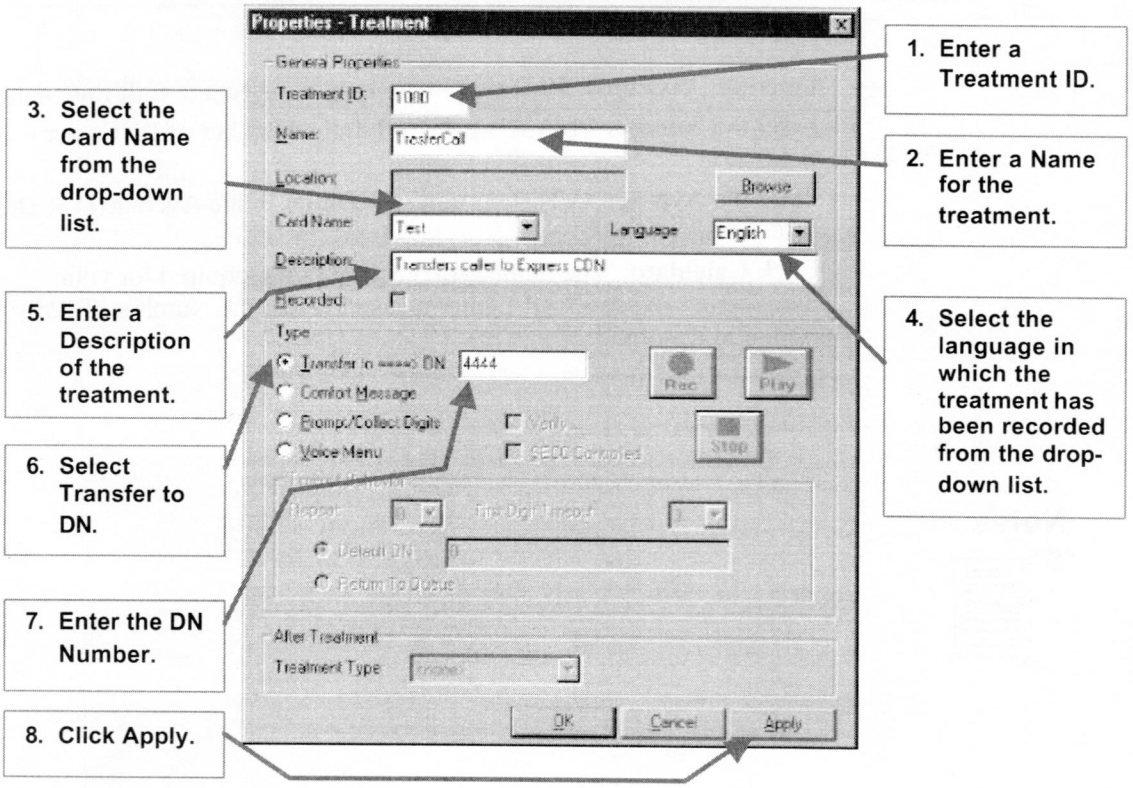


Figure 12: The Properties - Treatment Dialog Box with Transfer to DN Selected



- Enter a **Treatment ID**. The Treatment ID is a number used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.
- Enter a **Name** for the treatment. Note that this is just a descriptive name.



Tip: *The name that you enter in the **Name** data field is just a descriptive name for the call treatment. You will enter the actual filename in the **Location** data field.*

- Select the **Card Name** from the Card Name drop-down list.
- In the **Language** box, select the language in which the treatment has been recorded from the Language drop-down list.
- Enter a **Description** of the treatment (optional).
- In the Type section, select **Transfer to DN**.
- Enter the **DN Number**.
- Click **Apply**.

Notes



Add a Comfort Message Call Treatment

Follow the steps below to create a Comfort Message call treatment in the Voice Services Administration wizard:

- On the Voice Services Administration window toolbar, click the **Add** button. The Properties - Treatment dialog box opens.

Figure 13: The Add Button on the VS Administration Window Toolbar

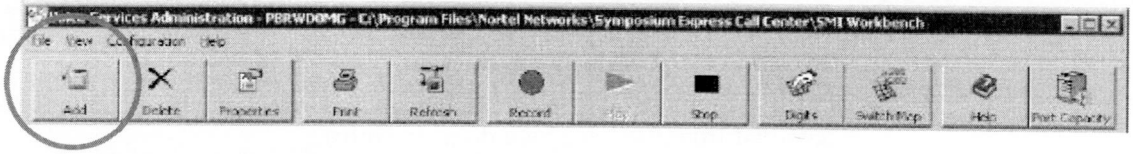
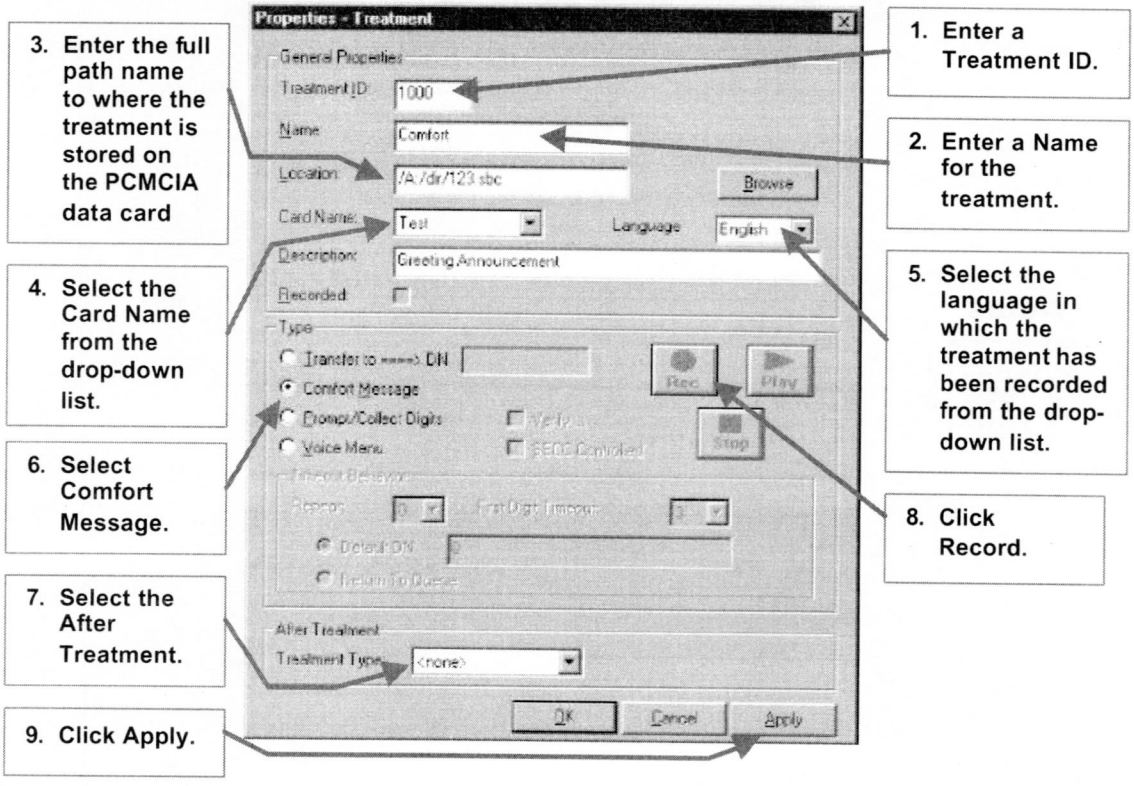


Figure 14: The Properties - Treatment Dialog Box with Comfort Message Selected



Notes



- Enter a **Treatment ID**. The Treatment ID is a number used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.
- Enter a **Name** for the treatment. Note that this is just a descriptive name.



Tip: *The name that you enter in the **Name** data field is just a descriptive name for the call treatment. You will enter the actual filename in the **Location** data field.*

- Enter the **Location** where the treatment will be stored. Enter the full path name to where the treatment is stored on the VS card's PCMCIA data card or click **Browse** to open a browse dialog box and navigate to the location where you want to store the treatment. The recording name must use hex values only. For example: 12AB.SBC.

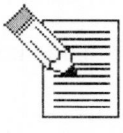


Tip: *The following rules apply to the file name to be entered in the Location data field:*

- *The file name can contain only digits 0–9 and the characters A–F.*
- *The file name cannot begin with the digit 0.*
- *The file name can have a maximum of eight characters (plus extension).*
- *The file name must end in the extension .sbc.*
- *The format of the location must be /X:/filename.sbc, where X is the drive of the PCMCIA card you are using to store the treatment.*

- Select the **Card Name** from the Card Name drop-down list.
- In the **Language** box, select the language in which the treatment has been recorded from the Language drop-down list.
- Enter a **Description** of the treatment (optional).
- In the Type section, select **Comfort Message**.

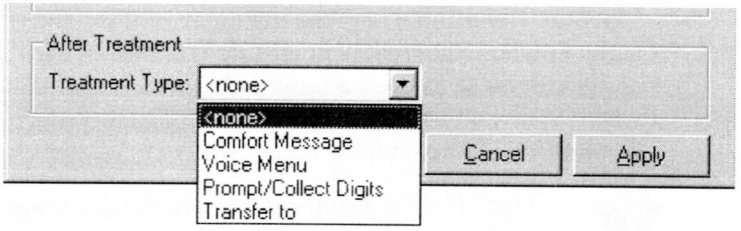
Notes



After Treatment

- Select the **After Treatment** type from the Treatment Type drop-down list. Treatments can be combined to follow one another. For example, you can have the VS card play a message indicating that no agent is available, and then transfer the call to a mailbox. To enable an after treatment, select the desired treatment type from the drop-down list.

Figure 15: The After Treatment Drop-down Menu on the Properties - Treatment Window





Tip: *If you select **Comfort Message**, **Voice Menu**, or **Play Prompt/Collect Digits**, you must select a treatment ID from the drop-down list that appears. If you select **Transfer to**, you must enter the DN to which the call will be transferred to in the dialog box that appears.*

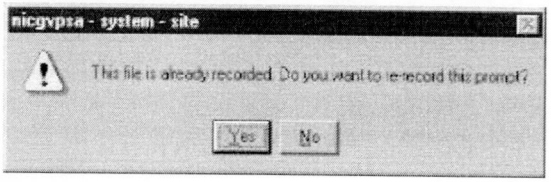
- Click **Apply** to save your entries.

Recording the Treatment or Using an Existing Recording

When creating your Comfort Message, you may either play an existing recording or record a new message.

- Click **Record**.
- If the prompt has already been recorded, the following dialog box opens.

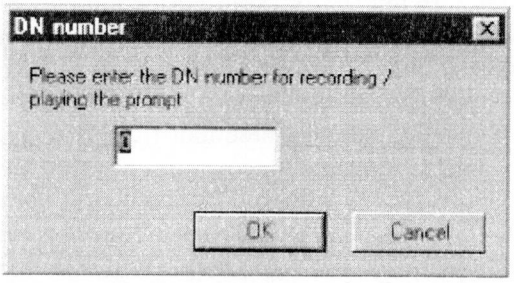
Figure 16: File Already Recorded Message



- If you want to rerecord the prompt, click **Yes**. The DN number dialog box opens.

- If the prompt has not been recorded, the DN number dialog box opens.
- Enter the **DN** of the phone you want to use to record the message, and then click **OK**.

Figure 17: The DN Number Dialog Box



- When the phone rings, answer the phone. The recording begins as soon as the phone is answered.
- Record your message. When you finish recording your message, hang up to stop recording.
- To replay your message, click **Play**. The DN number dialog box appears.
- Enter the **DN** of the phone you want to use to play the message, and then click **OK**.
- When the phone rings, answer the phone. The playback begins as soon as the phone is answered.
- Use the **Stop** button to stop the playback. The phone is disconnected as soon as the playback ends.

Notes



Add a Play Prompt/Collect Digits Call Treatment

If you intend to use verification prompts in a Play Prompt/Collect Digits treatment you must configure the digit voice prompts in the form of SBC files for each digit zero thru nine before configuring the Play Prompt/Collect Digits treatment. These digit prompts are played to callers after they select the terminate key during digit collection. For example if the caller was prompted to enter their account number and then entered 1234567, the system would play back "You have entered, one two three four five six seven."

If your Play Prompt/Collect Digits call treatment will not use the verification feature, you do not need to configure the digit voice prompts. However, if in the future you decide to add the verification feature to an existing Play Prompt/Collect Digits call treatment the digit voice prompts must be configured at that time.

Configure the Digit Voice Prompts

Follow the steps below to configure digit voice prompts:

- On the Voice Services Administration window toolbar, click the **Digits** button. The Digit Prompt dialog box opens.



Tip: *The **Digits** button does not appear unless you have purchased the Play Prompt/Collect Digits feature.*

Figure 18: The Add Button on the VS Administration Window Toolbar

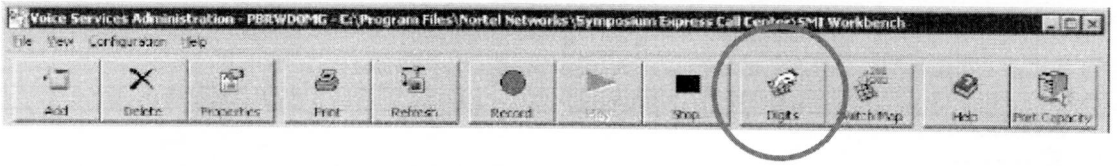
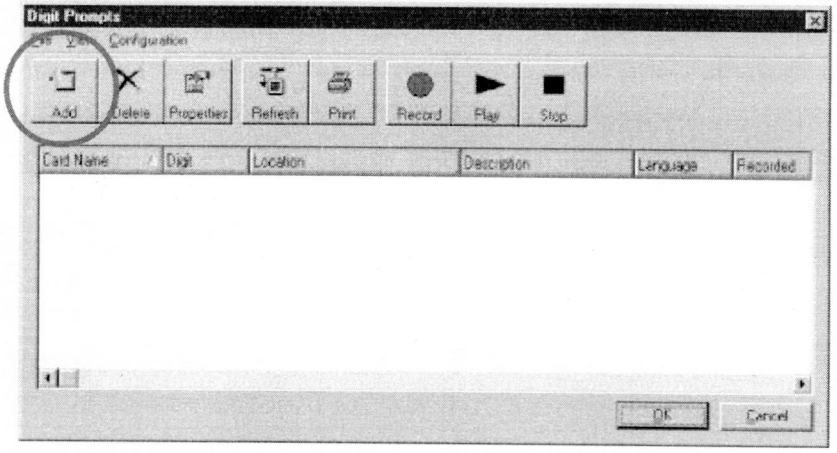
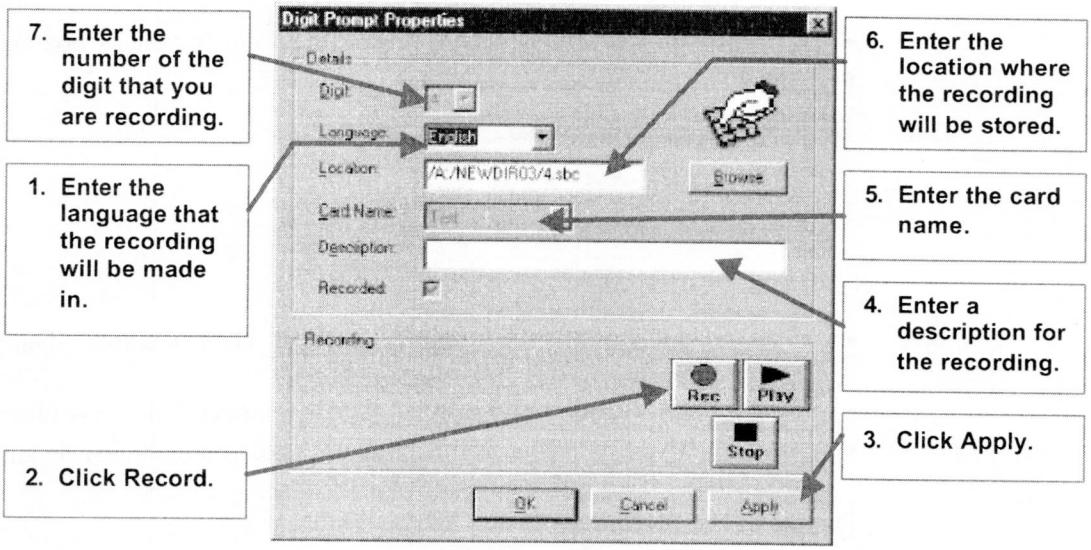


Figure 19: The Digit Prompt Dialog Box



- Click **Add**. The Digit Prompt Properties dialog box opens.

Figure 20: The Digit Prompt Properties Dialog Box



- In the Digit data field, enter the **Digit** you are recording.
- In the Language data field, enter the **Language** in which you are recording.

Tip: *The language you select in the Digit Prompt Properties dialog box above determines the language in which digits are replayed to the caller during digit verification.*

- In the Location data field, enter the **Location** on the VS card ATA data PCMCIA card where the treatment will be stored or click Browse and navigate to the location where the treatment will be stored.

Tip: *Store the SBC files in a safe location to prevent deletion. Nortel Networks recommends that you store them in a folder called Digits on the PCMCIA card.*

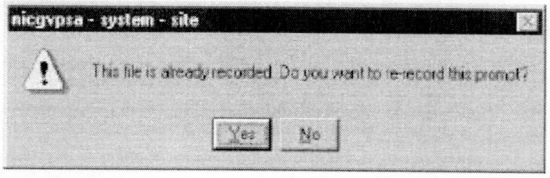
- In the Card Name data field, enter the Voice Services **Card Name**.
- In the Description data field, enter a **Description** of what you are recording (optional).
- Click **Apply**.

Notes

Record the Prompt

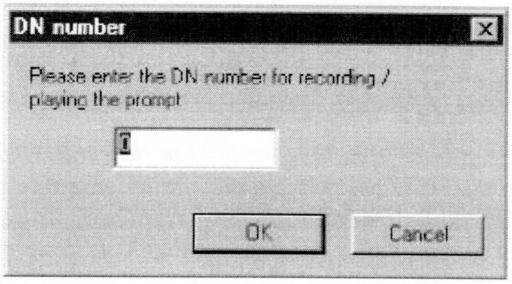
- Click **Record**.
- If the prompt has already been recorded, the following dialog box opens.

Figure 21: File Already Recorded Message



- If you want to rerecord the prompt, click **Yes**. The DN number dialog box opens.
- If the prompt has not been recorded, the DN number dialog box opens.
- Enter the **DN** of the phone you want to use to record the message, and then click **OK**.

Figure 22: The DN Number Dialog Box



- When the phone rings, answer the phone. The recording begins as soon as the phone is answered.
- Record the digit prompt. When you finish recording, hang up to stop recording.

You must repeat this process for each digit, 0-9.

Notes



Configure the Prompt/Collect Digit Call Treatment

Follow the steps below to create a Play Prompt/Collect Digits call treatment in the Voice Services Administration wizard:

- On the Voice Services Administration window toolbar, click the **Add** button. The Properties - Treatment dialog box opens.

Figure 23: The Add Button on the VS Administration Window Toolbar

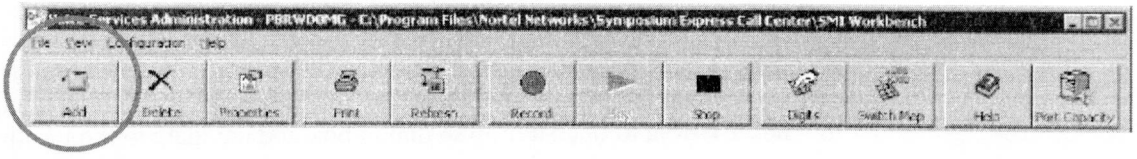
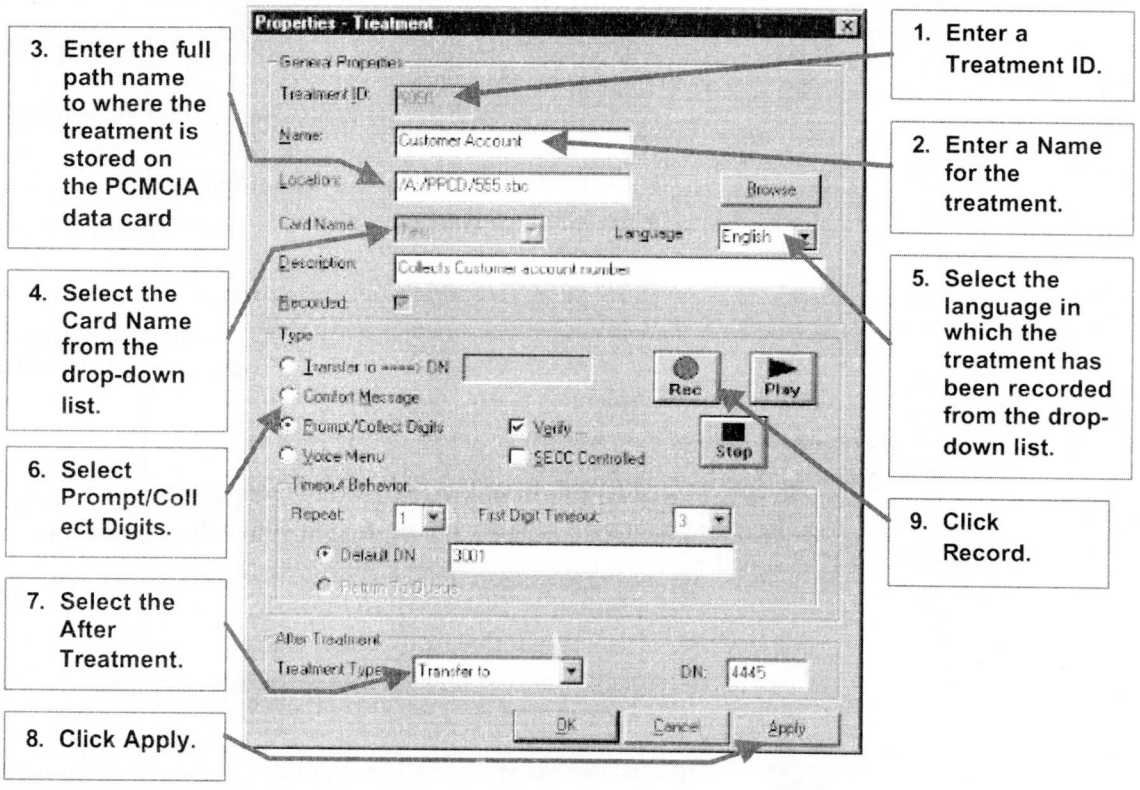


Figure 24: The Properties - Treatment Dialog Box with Play Prompt/Collect Digits Selected



Notes



- Enter a **Treatment ID**. The Treatment ID is a number used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.
- Enter a **Name** for the treatment. Note that this is just a descriptive name.



Tip: *The name that you enter in the **Name** data field is just a descriptive name for the call treatment. You will enter the actual filename in the **Location** data field.*

- Enter the **Location** where the treatment will be stored. Enter the full path name to where the treatment is stored on the VS card's PCMCIA data card or click **Browse** to open a browse dialog box and navigate to the location where you want to store the treatment. The recording name must use hex values only. For example: 12AB.SBC.



Tip: *The following rules apply to the file name to be entered in the Location data field:*

- *The file name can contain only digits 0–9 and the characters A–F.*
- *The file name cannot begin with the digit 0.*
- *The file name can have a maximum of eight characters (plus extension).*
- *The file name must end in the extension .sbc.*
- *The format of the location must be /X:/filename.sbc, where X is the drive of the PCMCIA card you are using to store the treatment.*

- Select the **Card Name** from the Card Name drop-down list.
- In the **Language** box, select the language in which the treatment has been recorded from the Language drop-down list.
- Enter a **Description** of the treatment (optional).
- In the Type section, select **Prompt/Collect Digits**.
- Click the **Verify** checkbox if this Play Prompt/Collect Digits call treatment will use verification prompts.



Tip: *To use the verify option, you must first have configured digit voice prompts as shown in the previous section.*

Notes



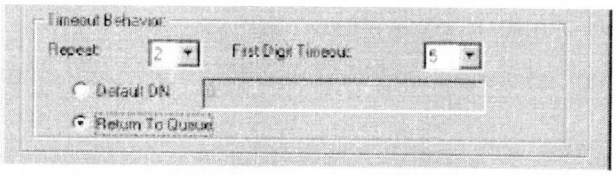
- Select the **SECC Controlled** checkbox if you want this call treatment to be configured as part of another Symposium Express Call Center Voice Services treatment. The Return To Queue option will be enabled.



Tip: *The SECC Controlled option is used if the Voice Menu is used as a pare of a Symposium Express Call Center call treatment, such as a Greeting Announcement: "Welcome to the ABC Company automated service. Please press 1 for the Sales Department, press 2 for the Service Department, or press 3 for the Parts Department."*

Timeout Behavior

Figure 25: The Timeout Behavior on the Properties - Treatment Window



- In the Timeout Behavior section enter a value in the **Repeat** box. This is the number of times the call treatment is repeated if no response is given by the caller.
- In the Timeout Behavior section enter a value in the **First Digit Timeout** box. This is the time in seconds that must elapse without any digit entry before repeating the treatment.
- If you want the call to be transferred to a number when there are no timeouts remaining, click the **Default DN** radio button and enter a valid **DN number** in the data field.
- Select the **Return To Queue** radio button if you want the call to return to the queue. You can use this option in preference to routing the call to a Default DN.



Tip: *You must set the timeout behavior for each Play Prompt/Collect Digits call treatment that you create.*

Notes



After Treatment

- Select the **After Treatment** type from the Treatment Type drop-down list. Treatments can be combined to follow one another. For example, you can have the VS card play a message indicating that no agent is available, and then transfer the call to a mailbox. To enable an after treatment, select the desired treatment type from the drop-down list.

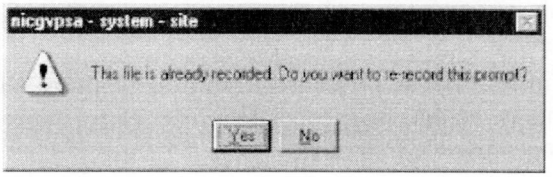
Tip: *If you select **Comfort Message**, **Voice Menu**, or **Play Prompt/Collect Digits**, you must select a treatment ID from the drop-down list that appears. If you select **Transfer to**, you must enter the DN to which the call will be transferred to in the dialog box that appears.*

- Click **Apply** to save your entries.

Record the Prompt

- Click **Record**.
- If the prompt has already been recorded, the following dialog box opens.

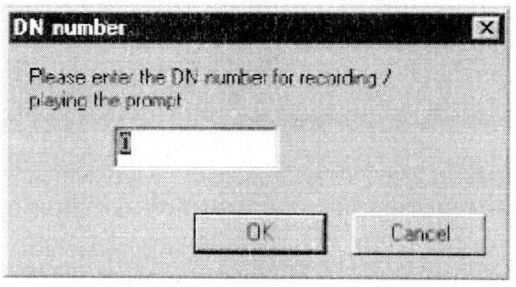
Figure 26: File Already Recorded Message



- If you want to rerecord the prompt, click **Yes**. The DN number dialog box opens.
- If the prompt has not been recorded, the DN number dialog box opens.
- Enter the **DN** of the phone you want to use to record the message, and then click **OK**.

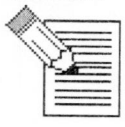
Notes

Figure 27: The DN Number Dialog Box



- When the phone rings, answer the phone. The recording begins as soon as the phone is answered.
- Record your message. When you finish recording your message, hang up to stop recording.
- To replay your message, click **Play**. The DN number dialog box appears.
- Enter the **DN** of the phone you want to use to play the message, and then click **OK**.
- When the phone rings, answer the phone. The playback begins as soon as the phone is answered.
- Use the **Stop** button to stop the playback. The phone is disconnected as soon as the playback ends.

Notes



Configure Verification Prompts for the Play Prompt/Collect Digits Call Treatment

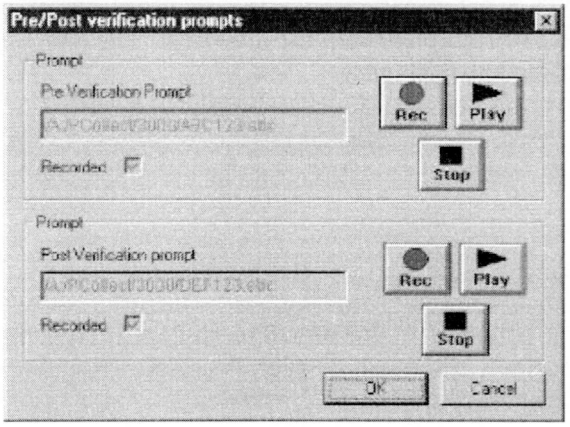
In this section you have configured the digit voice prompts and added a Play Prompt/Collect Digits call treatment. You will now configure the pre- and post-verification prompts for the Play Prompt/Collect Digits call treatment.

Note: Verification prompts are optional. You can choose to record either a pre-verification prompt, a post-verification prompt, both pre- and post-verification prompts, or no verification prompts at all.

Follow the steps below to configure verification prompts for your Play Prompt/Collect Digits call treatment:

- Return to the Voice Services Administration window and select the Play Prompt/Collect Digits call treatment that you previously configured.
- From the Voice Services Administration window menu bar, click on **Configuration** and then **Verification Prompts**. The Pre/Post verification prompts dialog box opens.

Figure 28: The Pre/Post Verification Prompts Dialog Box





Tip: *The names of the prompts and the locations where they are stored are automatically generated and cannot be modified.*

- In the Pre-Verification Prompt section, click **Record** to record the prompt.
- In the Post-Verification Prompt section, click **Record** to record the prompt.

Note: The procedure for making the recording is the same as covered earlier in this lesson.

Add a Voice Menu Call Treatment

Follow the steps below to create a Voice Menu call treatment in the Voice Services Administration wizard:

- On the Voice Services Administration window toolbar, click the **Add** button. The Properties - Treatment dialog box opens.

Figure 29: The Add Button on the VS Administration Window Toolbar

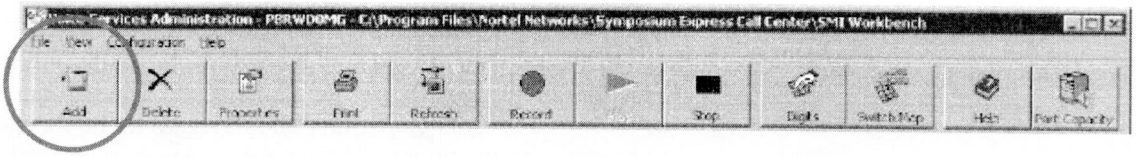
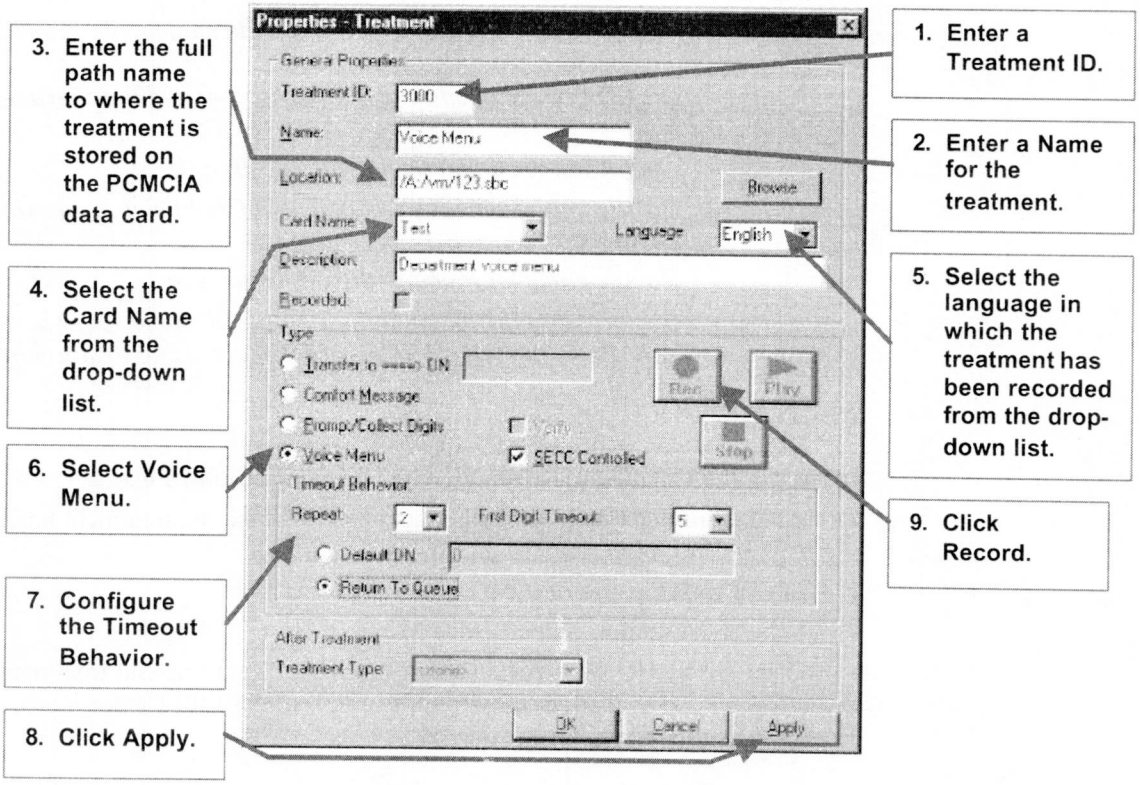


Figure 30: The Properties - Treatment Dialog Box with Voice Menu Selected



Notes



- Enter a **Treatment ID**. The Treatment ID is a number used to identify the treatment in the Call Routing wizard. Each treatment must have a unique treatment ID.
- Enter a **Name** for the treatment. Note that this is just a descriptive name.



Tip: *The name that you enter in the **Name** data field is just a descriptive name for the call treatment. You will enter the actual filename in the **Location** data field.*

- Enter the **Location** where the treatment will be stored. Enter the full path name to where the treatment is stored on the VS card's PCMCIA data card or click **Browse** to open a browse dialog box and navigate to the location where you want to store the treatment. The recording name must use hex values only. For example: 12AB.SBC.



Tip: *The following rules apply to the file name to be entered in the Location data field:*

- *The file name can contain only digits 0–9 and the characters A–F.*
- *The file name cannot begin with the digit 0.*
- *The file name can have a maximum of eight characters (plus extension).*
- *The file name must end in the extension .sbc.*
- *The format of the location must be /X:/filename.sbc, where X is the drive of the PCMCIA card you are using to store the treatment.*

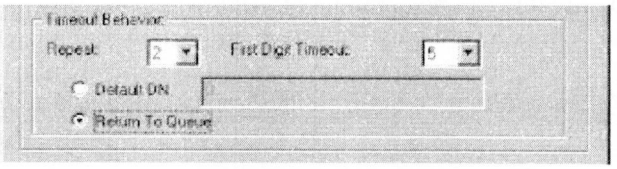
- Select the **Card Name** from the Card Name drop-down list.
- In the **Language** box, select the language in which the treatment has been recorded from the Language drop-down list.
- Enter a **Description** of the treatment (optional).
- In the Type section, select **Voice Menu**.
- Select the **SECC Controlled** checkbox if you want this call treatment to be configured as part of another Symposium Express Call Center Voice Services treatment.



Tip: *The SECC Controlled option is used if the Voice Menu is used as a pare of a Symposium Express Call Center call treatment, such as a Greeting Announcement: "Welcome to the ABC Company automated service. Please press 1 for the Sales Department, press 2 for the Service Department, or press 3 for the Parts Department."*

Timeout Behavior

Figure 31: The Timeout Behavior on the Properties - Treatment Window



- In the Timeout Behavior section enter a value in the **Repeat** box. This is the number of times the call treatment is repeated if no response is given by the caller.
- In the Timeout Behavior section enter a value in the **First Digit Timeout** box. This is the time in seconds that must elapse without any digit entry before repeating the treatment.
- If you want the call to be transferred to a number when there are no timeouts remaining, click the **Default DN** radio button and enter a valid **DN number** in the data field.
- Select the **Return To Queue** radio button if you want the call to return to the queue. You can use this option in preference to routing the call to a Default DN.
- Enter the timeout behavior for the Voice Menu in the **Timeout Behavior** dialog box.



Tip: *You must set the timeout behavior for each Voice Menu that you create.*

Notes



After Treatment

- Select the **After Treatment** type from the Treatment Type drop-down list. Treatments can be combined to follow one another. For example, you can have the VS card play a message indicating that no agent is available, and then transfer the call to a mailbox. To enable an after treatment, select the desired treatment type from the drop-down list.

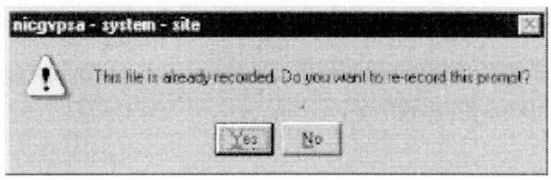
Tip: *If you select **Comfort Message**, **Voice Menu**, or **Play Prompt/Collect Digits**, you must select a treatment ID from the drop-down list that appears. If you select **Transfer to**, you must enter the DN to which the call will be transferred to in the dialog box that appears.*

- Click **Apply** to save your entries.

Record the Menu Prompt

- Click **Record**.
- If the menu prompt has already been recorded, the following dialog box opens.

Figure 32: File Already Recorded Message



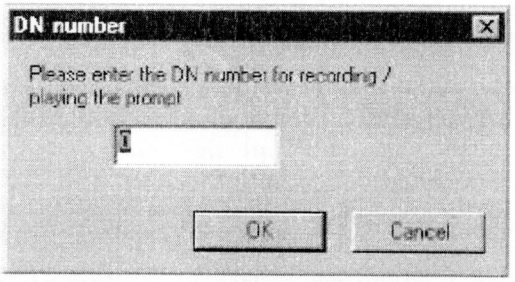
- If you want to rerecord the menu prompt, click **Yes**. The DN number dialog box opens.
- If the menu prompt has not been recorded, the DN number dialog box opens.

Notes



- Enter the **DN** of the phone you want to use to record the message, and then click **OK**.

Figure 33: The DN Number Dialog Box



- When the phone rings, answer the phone. The recording begins as soon as the phone is answered.
- Record your message. When you finish recording your message, hang up to stop recording.
- To replay your message, click **Play**. The DN number dialog box appears.
- Enter the **DN** of the phone you want to use to play the message, and then click **OK**.
- When the phone rings, answer the phone. The playback begins as soon as the phone is answered.
- Use the **Stop** button to stop the playback. The phone is disconnected as soon as the playback ends.

Notes



Multi-layered Voice Menu Treatments

If you want to build up several Voice Menu treatments into a multi-layered system, you can configure further Voice Menu treatments under the initial Voice Menu that you have created.

- From the VS Administration window, double-click on the Voice Menu call treatment that you have created or click on to select the new Voice Menu call treatment and click the **Properties** button on the toolbar to open the Voice Menu tree view. The Voice Menu Properties window will open.

Figure 34: The Properties Button on the VS Administration Window

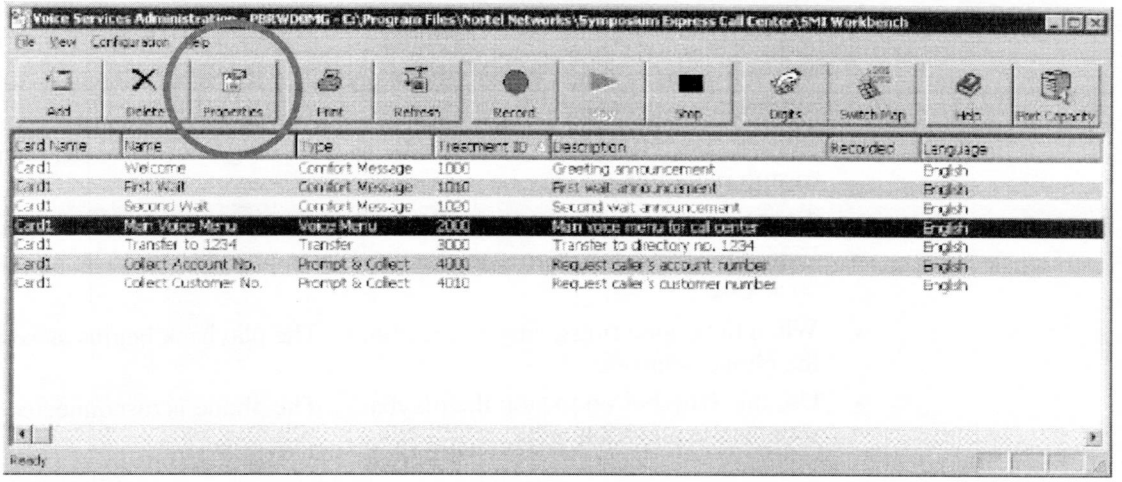
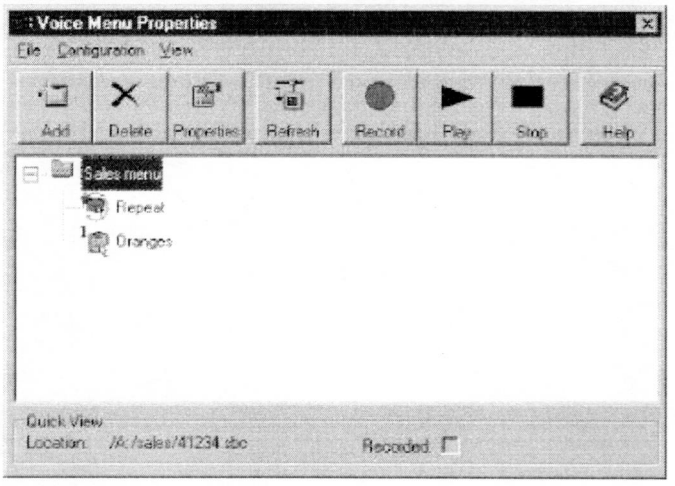
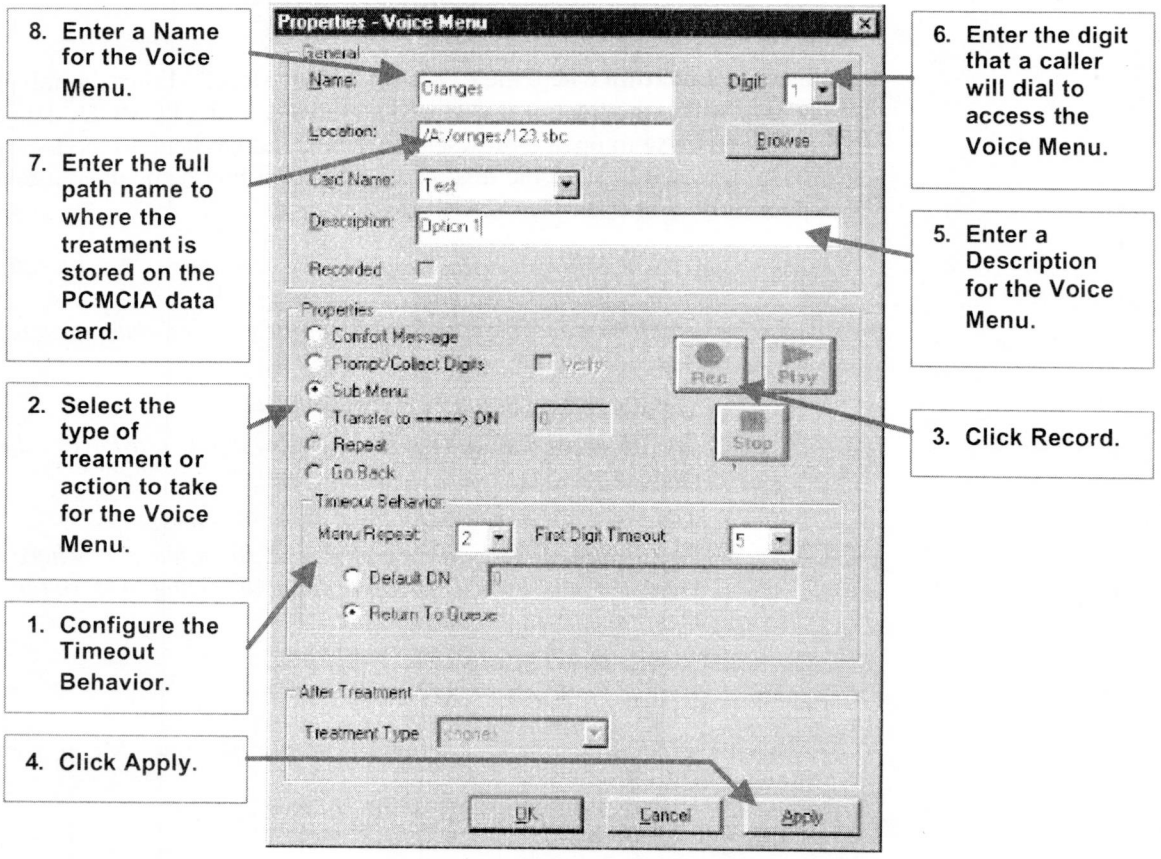


Figure 35: The Voice Menu Tree on the Voice Menu Properties window



- Highlight the top-level Menu, as shown in the figure above, and click **Add** to add a new branch to the menu. The Properties – Voice Menu window will open

Figure 36: The Properties – Voice Menu



Tip: *Use the Digit field on the Properties – Voice Menu window to set the digit that the caller will press on their phoneset to access the menu or sub-menu option. For example, "Press 1 for Sales". This digit is also displayed to the left of the menu item on the Voice Menu Properties tree.*

Notes

- Enter a **Name** for the treatment. Note that this is just a descriptive name.



Tip: *The name that you enter in the **Name** data field is just a descriptive name for the call treatment. You will enter the actual filename in the **Location** data field.*

- Enter the **Location** where the treatment will be stored. Enter the full path name to where the treatment is stored on the VS card's PCMCIA data card or click **Browse** to open a browse dialog box and navigate to the location where you want to store the treatment. The recording name must use hex values only. For example: 12AB.SBC.



Tip: *The following rules apply to the file name to be entered in the Location data field:*
  - *The file name can contain only digits 0–9 and the characters A–F.*
  - *The file name cannot begin with the digit 0.*
  - *The file name can have a maximum of eight characters (plus extension).*
  - *The file name must end in the extension .sbc.*
  - *The format of the location must be /X:/filename.sbc, where X is the drive of the PCMCIA card you are using to store the treatment.*

- Enter a **Description** of the treatment (optional).
- Choose the type of treatment or action to take for the Voice Menu from the following options:
  - Comfort Message
  - Play Prompt/Collect Digits
  - Sub-Menu
  - Transfer to DN
  - Repeat
  - Go back

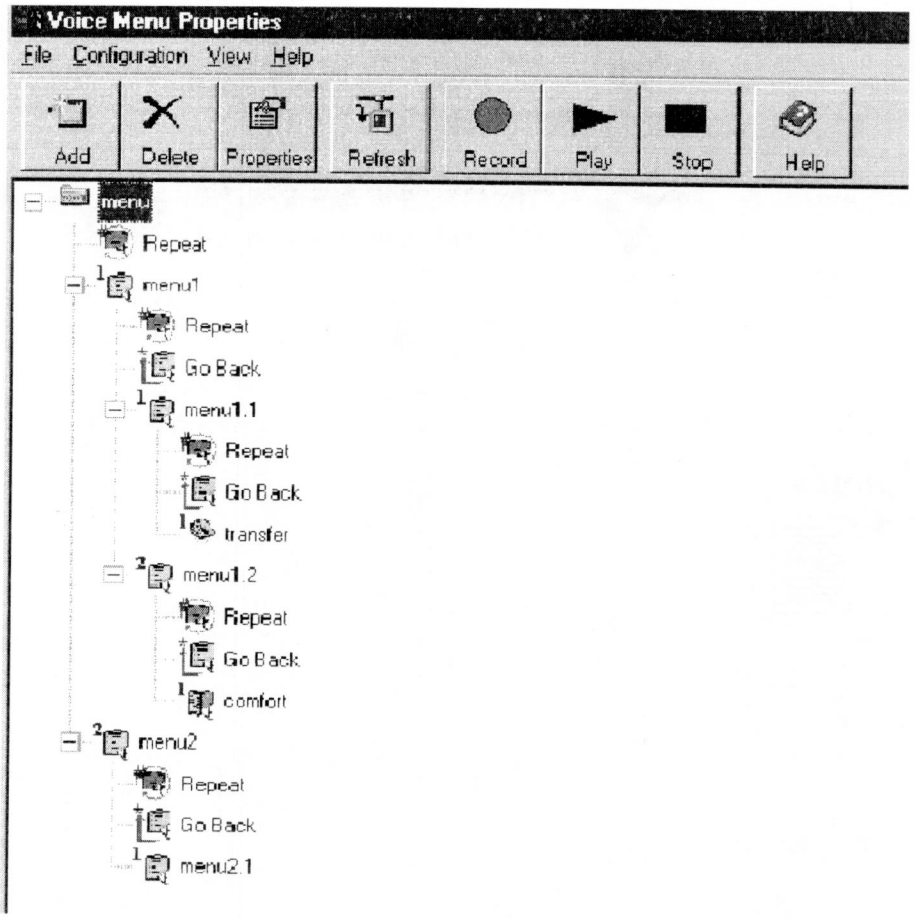
Configure the type of treatment that you have selected. Use the instructions provided in the previous sections of this lesson.

Notes



For example, you can name menu1 "Sales" and record a call treatment: "Welcome to the Sales department: please press "1" for Corporate Sales or press "2" for Personal Sales". Then for menu1.1 you could record a call treatment: "Welcome to the Corporate Sales department; your call will be handled by the next available agent." For menu1.2 you could record a call treatment: "Welcome to the Personal Sales department; your call will be handled by the next available agent."

Figure 37: The Voice Menu Properties Window with Sub-Menus in the Tree



Notes





Tip: *You can rename any node on the VS Voice Menu Properties tree by clicking on the node and typing in the new name.*



Tip: *The numbers to the left of a node indicate the number that a caller will press to access that option. For example, press 1 for menu1 or 2 for menu2.*



Tip: *The "Repeat" (the announcement) and "Go Back" (up one menu level) menu items are defined automatically, as required*



Tip: *You can continue to configure call treatments for the sub-menu options (menu1.1 and menu1.2).*

Notes

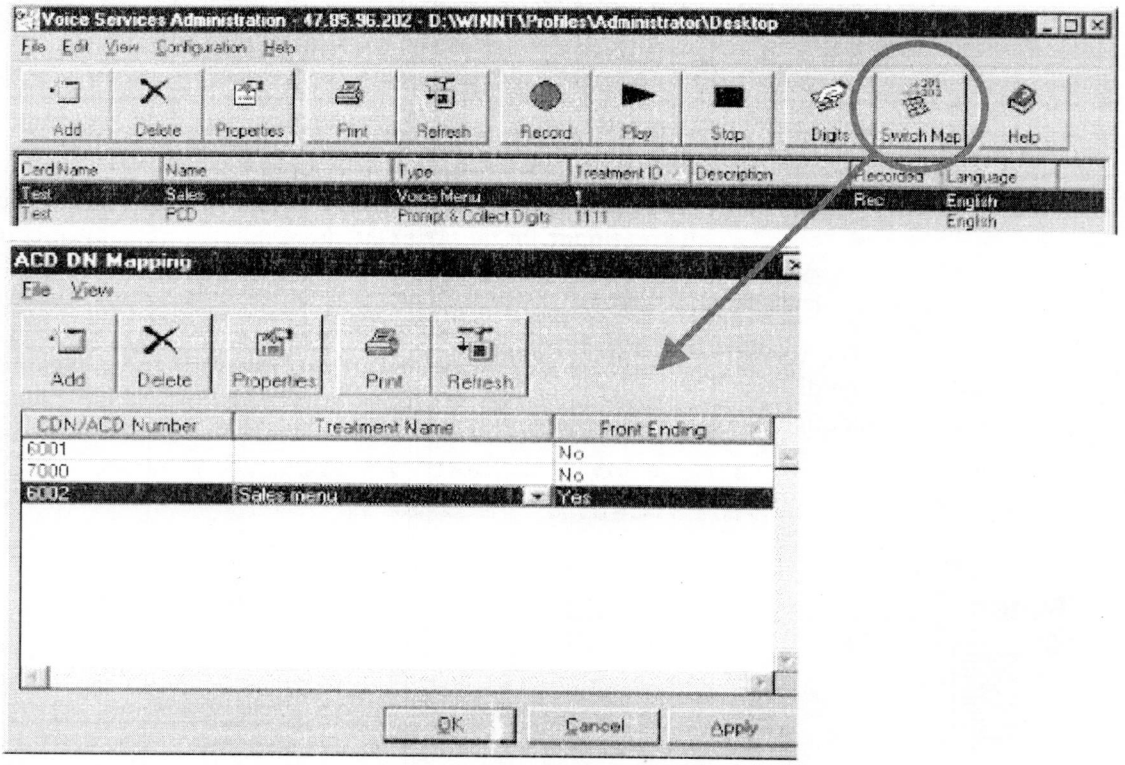


Mapping VS Call Treatments to an ACD Queue

As a final step in creating VS call treatments for use in your call center, you must associate a call treatment with each ACD queue on the Meridian 1 switch that will be used to front-end the call center with the VS card. There can be several parts to a call treatment, but the final part must transfer the call to the Symposium Express Call Center. For example, you may have a Voice Menu, "Press 1 for Sales or press 2 for Service," followed by a Comfort Message, "Your call will be answered by the next available agent." After the last Comfort Message, the call transfers to the Symposium Express Call Center, and routes to the first available agent in the appropriate skillset.

To open the ADC/DN Mapping window, click the **Switch Map** button on the VS Administration window tool bar.

Figure 38: Opening the ADC/DN Mapping Window from the VS Administration Window



Notes

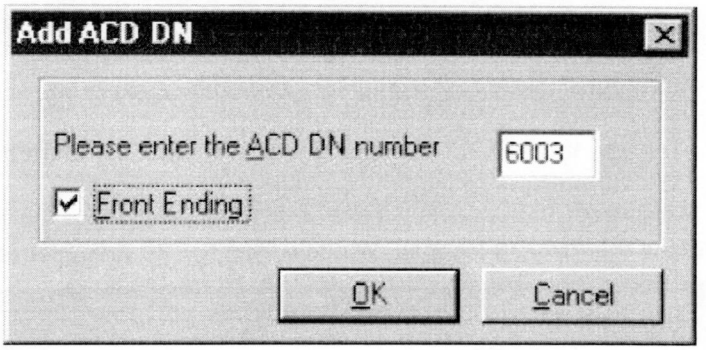


On the ADC/DN Mapping window there are columns for CDN/ACD Number, Treatment Name, and Front Ending.

To add a new VS call treatment to ACD queue mapping, follow the steps below:

- Click **Add**. The Add ACD/DN dialog box opens.

Figure 39: The Add ACD DN Dialog Box



- Enter the ACD/DN number and check to select whether the ACD/DN front-ends the call center.
- Click **OK** to accept your entries. The Add ACD/DN dialog box will close.
- Select a **call treatment** for the ACD/DN from the drop-down list on the ACD/DN Mapping window.
- Click **Apply**.

The VS call treatment is now mapped to the specified ACD/DN. Next, assign the dialable TN for the virtual agent in the ACD queue that you previously configured on the Meridian 1 switch.

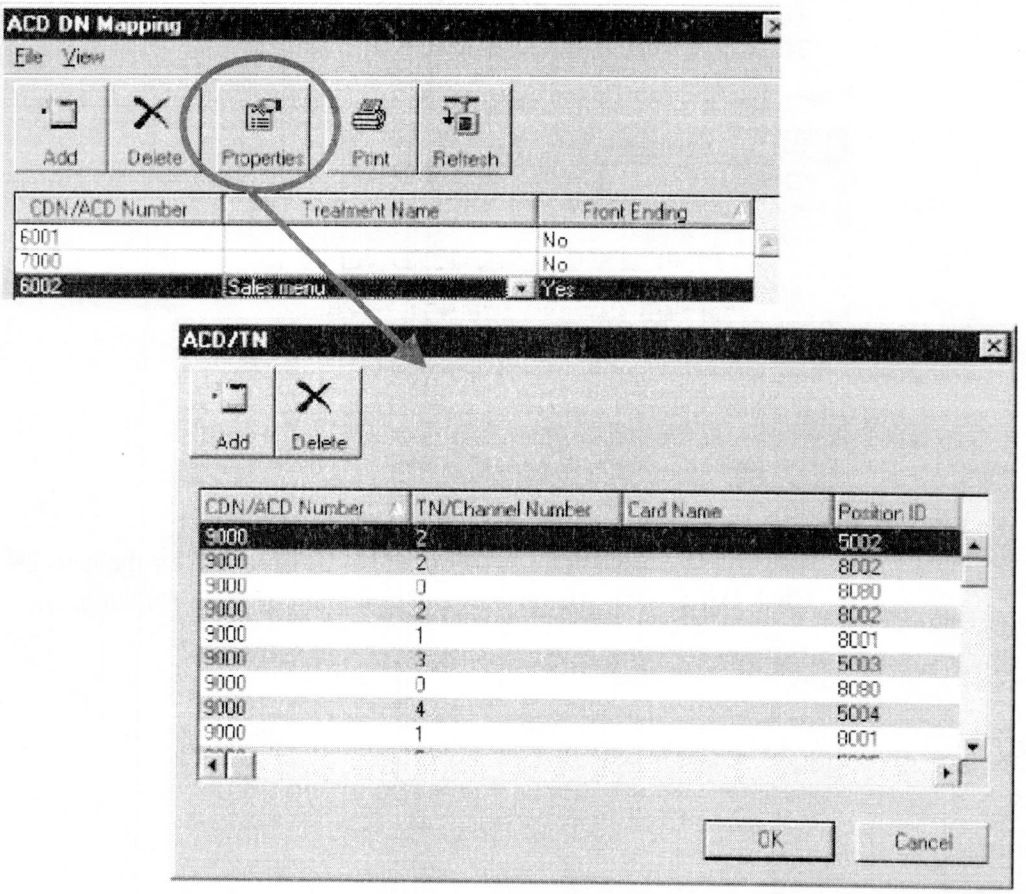
Notes



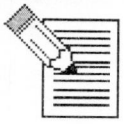
Follow the steps below to assign the TN:

- On the ADC/DN Mapping window toolbar, click on the **Properties** button to open the ACD/TN window as shown below.

Figure 40: The Opening the ACD/TN Window from the ADC/DN Mapping Window



Notes

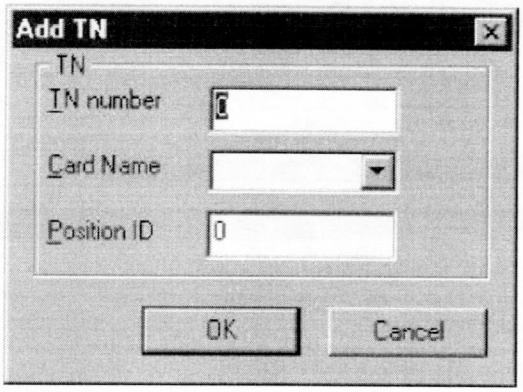




Tip: *On the ACD/TN window you will see the channels associated with each ACD Queue. The information on this screen is populated during the VS import covered earlier.*

- To add a new TN, click the **Add** button on the ACD/TN window toolbar. The Add TN dialog box opens.

Figure 40: The Add TN Dialog Box



- Enter the **TN number**, **Card Name** and **Position ID** for the new TN.
- Click **OK** to save your entries and return to the ACD/TN window.

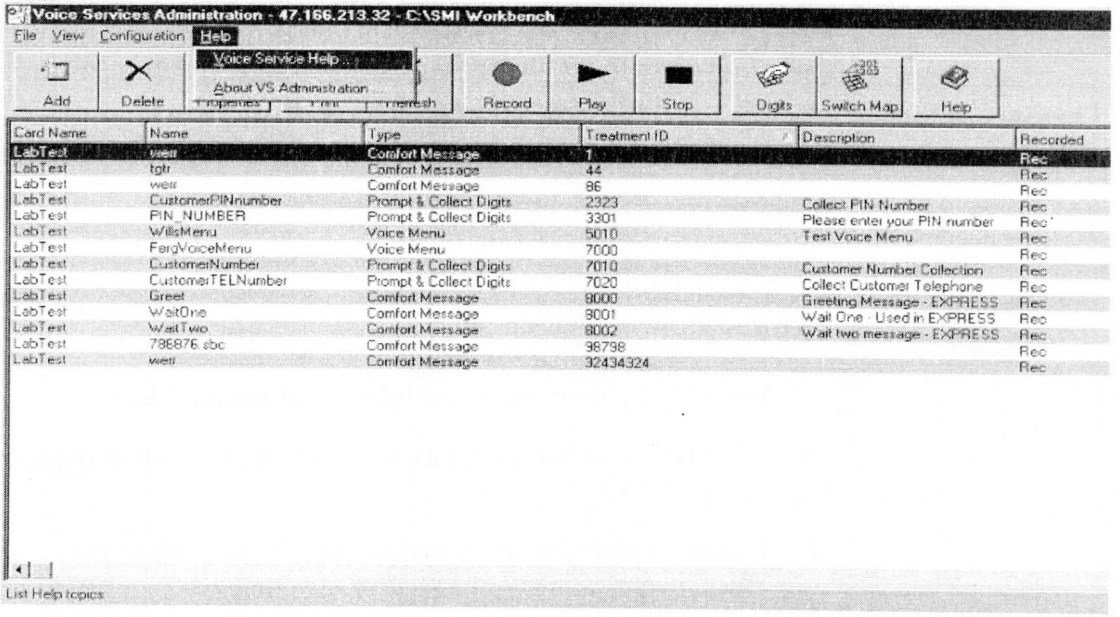
Notes



Voice Services Help

For additional Voice Services information access **Voice Services Help** from the **Help** menu on the Voice Services Administration window.

Figure 42: Accessing Voice Services Help **on the Voice Services Administration Window**



Notes





Practice

Voice Services Card Configuration Questions

Answer the questions below. Refer to your notes, lesson material, the *Symposium Express Voice Services Card Installation Guide*, the *Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide*. Verify your answers with the Answers to Practice page(s) that follow.

Select Answer

1. What are the four types of call treatments available on the VS card?

- a. Voice Menu, Main Menu, Sub-Menu, and Default Menu
- b. Caller ID, Voice Message, Fax Message, and Screen Pop Digits to Agent Desktop
- c. Transfer to DN, Comfort Message, Play Prompt/Collect Digits, and Voice Menu
- d. Enter Account Number, Play Music, Play Recorded Announcement, and Route Call to Agent

Select Answer

2. How is the VSConfig utility accessed on the server PC?

- a. From the Start Menu, select Programs, Symposium Express Call Center, Voice Services, and then Configuration
- b. From the Start Menu, select Programs, Symposium Call Center Server, Call Treatment Options, Voice Services, and then Configuration
- c. From the Start Menu, select Programs, Symposium Express Call Center, Call Treatment Options, and then Voice Services Configuration
- d. From the Start Menu, select Programs, Global Knowledge, Symposium Express Call Center, Voice Services Configuration Menu, and then Configuration

reset

Select Answer

3. When creating a new call treatment, what is entered in the Location data block on the Properties – Treatment window?

- a. The full path name, in hex values only, to the file where the treatment is stored on the VS card's ATA data card
- b. The name of the central office and NCC server in the Symposium Call Center network where the call treatment will be stored
- c. The name of the branch office and geographical location in the Symposium Call Center network where the call treatment will be used
- d. The full path name, in hex values only, to the file where the treatment is stored on the hard disk drive of the server PC

Select Answer

4. When viewing the Voice Menu Properties window, what do the numbers to the left hand side of a node on the menu tree indicate?

- a. The level of the Voice Menu that the node is located in
- b. The number that a caller will press to access that option in the Voice Menu
- c. The TN number that a caller will dial to access that option in the Voice Menu
- d. The treatment ID number that a caller will dial to access that option in the Voice Menu

reset



Answers to Practice

Voice Services Card Configuration Questions

Check your answers to the practice.

1. What are the three types of call treatments available on the VS card?

   a. Voice Menu, Sub-Menu, and Default Menu

   b. Caller ID, Voice Message, and Play Prompt/Collect Digits

   c. Comfort Message, Play Prompt/Collect Digits, and Voice Menu

   d. Comfort Message, Front Ending Message, and Transfer to CDN

2. How is the VSConfig utility accessed on the server PC?

   a. From the Start Menu, select Programs, Symposium Express Call Center, Voice Services, and then Configuration

   b. From the Start Menu, select Programs, Symposium Call Center Server, Call Treatment Options, Voice Services, and then Configuration

   c. From the Start Menu, select Programs, Symposium Express Call Center, Call Treatment Options, and then Voice Services Configuration

   d. From the Start Menu, select Programs, Global Knowledge, Symposium Express Call Center, Voice Services Configuration Menu, and then Configuration

3. When creating a new call treatment, what is entered in the Location data block on the Properties – Treatment window?

   a. The full path name, in hex values only, to the file where the treatment is stored on the VS card's ATA data card

   b. The name of the central office and NCC server in the Symposium Call Center network where the call treatment will be stored

   c. The name of the branch office and geographical location in the Symposium Call Center network where the call treatment will be used

   d. The full path name, in hex values only, to the file where the treatment is stored on the hard disk drive of the server PC

4. When viewing the Voice Menu Properties window, what do the numbers to the left hand side of a node on the menu tree indicate?

   a. The level of the Voice Menu that the node is located in

   b. The number that a caller will press to access that option in the Voice Menu

   c. The TN number that a caller will dial to access that option in the Voice Menu

   d. The treatment ID number that a caller will dial to access that option in the Voice Menu



Skill Check

Adding New Call Treatments

Use your notes, lesson material, the *Symposium Express Voice Services Card Installation Guide, Symposium Express Call Center Planning, Installation, and Administration Guide*, and the *Symposium Express Call Center Call Center Management Guide* as reference material to assist in performing the tasks below.

Using the classroom resource sheet:

1. Add a Comfort Message call treatment to your call center.
2. Add a Voice Menu to your call center.
3. Map your call treatments to ACD queues.



Skill Check Feedback

Adding New Call Treatments

You have successfully completed the Skill Check when you have added a Comfort Message call treatment and a Voice Menu call treatment to your call center. You must also map the call treatments to the correct ACD queues.

Step	Adding New Call Treatments	V
1	Add a Comfort Message call treatment to your call center. - On the Voice Services Administration window toolbar, click the **Add** button. The Properties - Treatment dialog box opens. - Enter a **Treatment ID**. - Enter a **Name** for the treatment. - Enter the **Location** where the treatment will be stored. - Select the **Card Name** from the Card Name drop-down list. - In the **Language** box, select the language in which the treatment has been recorded from the Language drop-down list. - Enter a **Description** of the treatment (optional). - In the Type section, select **Comfort Message**. - Select the **After Treatment** type from the Treatment Type drop-down list. - Click **Record**. - If you want to rerecord the prompt, click **Yes**. The DN number dialog box opens. - If the prompt has not been recorded, the DN number dialog box opens. - Enter the **DN** of the phone you want to use to record the message, and then click **OK**. - When the phone rings, answer the phone. The recording begins as soon as the phone is answered. - Record your message. When you finish recording your message, hang up to stop recording. - To replay your message, click **Play**. The DN number dialog box appears. - Enter the **DN** of the phone you want to use to play the message, and then click **OK**. - When the phone rings, answer the phone. The playback begins as soon as the phone is answered. - Use the **Stop** button to stop the playback. The phone is disconnected as soon as the playback ends.	

Step	Adding New Call Treatments (continued)	V
2	Add a Voice Menu to your call center. - On the Voice Services Administration window toolbar, click the **Add** button. The Properties - Treatment dialog box opens. - Enter a **Treatment ID**. - Enter a **Name** for the treatment. - Enter the **Location** where the treatment will be stored. - Select the **Card Name** from the Card Name drop-down list. - In the **Language** box, select the language in which the treatment has been recorded from the Language drop-down list. - Enter a **Description** of the treatment (optional). - In the Type section, select **Voice Menu**. - Select the **SECC Controlled** checkbox if you want this call treatment to be configured as part of another Symposium Express Call Center Voice Services treatment. - In the Timeout Behavior section enter a value in the **Repeat** box. This is the number of times the call treatment is repeated if no response is given by the caller. - In the Timeout Behavior section enter a value in the **First Digit Timeout** box. This is the time in seconds that must elapse without any digit entry before repeating the treatment. - If you want the call to be transferred to a number when there are no timeouts remaining, click the **Default DN** radio button and enter a valid **DN number** in the data field. - Select the **Return To Queue** radio button if you want the call to return to the queue. You can use this option in preference to routing the call to a Default DN. - Enter the timeout behavior for the Voice Menu in the **Timeout Behavior** dialog box. - Select the **After Treatment** type from the Treatment Type drop-down list. - Click **Apply** to save your entries. - Click **Record**. - If you want to rerecord the prompt, click **Yes**. The DN number dialog box opens. - If the prompt has not been recorded, the DN number dialog box opens. - Enter the **DN** of the phone you want to use to record the message, and then click **OK**. - When the phone rings, answer the phone. The recording begins as soon as the phone is answered. - Record your message. When you finish recording your message, hang up to stop recording. - To replay your message, click **Play**. The DN number dialog box appears. - Enter the **DN** of the phone you want to use to play the message, and then click **OK**. - When the phone rings, answer the phone. The playback begins as soon as the phone is answered. - Use the **Stop** button to stop the playback. The phone is disconnected as soon as the playback ends.	

Step	Adding New Call Treatments (continued)	V
2 (cont)	Add a Voice Menu to your call center (continued). - From the VS Administration window, double-click on the Voice Menu call treatment that you have created or click on to select the new Voice Menu call treatment and click the **Properties** button on the toolbar to open the Voice Menu tree view. The Voice Menu Properties window will open. - Highlight the top-level Menu, as shown in the figure above, and click **Add** to add a new branch to the menu. The Properties – Voice Menu window will open - Enter a **Name** for the treatment. Note that this is just a descriptive name. - Enter the **Location** where the treatment will be stored. - Enter a **Description** of the treatment (optional). - Choose the type of treatment or action to take for the Voice Menu from the following options: - Comfort Message - Play Prompt/Collect Digits - Sub-Menu - Transfer to DN - Repeat - Go back - Configure the type of treatment that you have selected.	
3	Map your call treatments to ACD queues. - To open the ADC/DN Mapping window, click the **Switch Map** button on the VS Administration window tool bar. - To add a new VS call treatment to ACD queue mapping, click **Add**. The Add ACD/DN dialog box opens. - Enter the ACD/DN number and check to select whether the ACD/DN front-ends the call center. - Click **OK** to accept your entries. The Add ACD/DN dialog box will close. - Select a **call treatment** for the ACD/DN from the drop-down list on the ACD/DN Mapping window. - Click **Apply**. - On the ADC/DN Mapping window toolbar, click the **Properties** button to open the ACD/TN window. - To add a new TN, click the **Add** button on the ACD/TN window toolbar. The Add TN dialog box opens. - Enter the **TN number**, **Card Name** and **Position ID** for the new TN. - Click **OK** to save your entries and return to the ACD/TN window.	

Summary

In this lesson you learned how to configure call treatments for your call center on the Voice Services (VS) card. You had the opportunity to import the VS resources on the switch to the Symposium Express Call Center using the VSConfig utility, and created the various types of call treatments on the VS card. You learned to map the call treatments that you created to the appropriate ACD queue. Practice exercises and hands-on training were provided to reinforce the tasks and concepts covered in this lesson. You are now ready configure call treatments and call routing on your call center.